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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Examine
Electric Utility De-Energization of Power
Lines in Dangerous Conditions.

Rulemaking 18-12-005
(Filed December 13, 2018)

**FINAL REPORT OF
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
PROVIDING WEEKLY UPDATE
IN COMPLIANCE WITH OCTOBER 14, 2019 LETTER
OF COMMISSION PRESIDENT BATJER**

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Dated: December 6, 2019

Attorneys for
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**FINAL REPORT OF
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IN COMPLIANCE WITH OCTOBER 14, 2019 LETTER
OF COMMISSION PRESIDENT BATJER**

In compliance with the letter dated October 14, 2019, from Commission President Marybel Batjer to PG&E Corporation Chief Executive Officer William Johnson (October 14 Letter), as clarified by the “Administrative Law Judge’s Ruling Clarifying the Categorization and *Ex Parte* Requirements of the Order to Show Cause Portion of the Proceeding,” issued on November 26, 2019 (ALJ Ruling), Pacific Gas and Electric Company (PG&E) hereby submits the attached report updating its corrective actions related to the Public Safety Power Shut-off (PSPS) program.

For the reasons set forth in Section II below, this will be PG&E’s final weekly update in compliance with the October 14 Letter. The next update will be provided in PG&E’s PSPS Progress Report to be submitted in March 2020, in compliance with Decision 19-05-042.

I. PROCEDURAL BACKGROUND

In the October 14 Letter, President Batjer directed PG&E to “file weekly updates on corrective actions until all concerns [described in the letter] below have been addressed.” (October 14 Letter, p. 2.) PG&E complied with this requirement by submitting the weekly updates by letter to President Batjer on October 17, October 25, November 1, and November 8. The Commission, in turn, posted the letters and accompanying matrixes on its public-facing website.

On November 12, 2019, Assigned Commissioner Batjer and Co-Assigned ALJ Semcer issued a ruling in this proceeding directing PG&E to show cause why it should not be sanctioned for alleged violation of Public Utilities Code Section 451, Commission Decision 19-05-042, and Resolution ESRB-8 (OSC Ruling). With issuance of the OSC Ruling, PG&E was concerned that its weekly updates could be subject to the ban on ex parte communications. On November 26, 2019, in response to PG&E's motion for clarification, Co-Assigned ALJ Marcelo Poirier clarified that the OSC "is categorized as adjudicatory." (ALJ Ruling, p. 2.) ALJ Poirier also directed PG&E to "formally file and serve the weekly update on corrective actions." (*Id.*, p. 3.)

II. PG&E WILL PROVIDE AN UPDATE ON REMAINING ITEMS IN ITS MARCH 2020 PSPS PROGRESS REPORT

As stated above, the October 14 Letter required PG&E to file weekly updates on corrective actions "until all concerns [described in the letter] below have been addressed." (October 14 Letter, p. 2.) The attached weekly update demonstrates that all corrective actions have either (1) been completed, or (2) have a plan and time for completion. For these reasons, PG&E believes weekly updates are no longer necessary or helpful.

In its Decision Adopting De-Energization (Public Safety Power Shut-Off) Guidelines (Phase 1 Guidelines), the Commission directed PG&E and the other California investor-owned electric utilities to submit "two progress reports detailing progress towards implementation of the guidelines set forth in Appendix A," with the first progress report due three months after issuance of the decision (September 2019), and the second progress report due nine months after the issuance of the decision (March 2020). (D. 19-05-042 Ordering Paragraph 3.) PG&E submitted its first report in September 2019, and PG&E plans to submit its second report in March 2020. PG&E will provide an update as appropriate on items in the corrective actions

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matrix in its March 2020 PSPS Progress Report. In the meantime, PG&E will continue to engage the Commission for assistance with resolving issues that require intra-agency coordination.^{1/}

Respectfully Submitted,

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^{1/} October 14 Letter, "If PG&E requires additional assistance from the State in order to execute this critical mission, PG&E needs to communicate what resources it needs and the CPUC will work with our State agency partners to take appropriate steps."

Corrective Actions Matrix

No	Issue	Week of 10/14/19 Update	Status
1. Scaling of business operations			
1.a	Identify the maximum customer outage that could occur during a PSPS, and the commensurate bandwidth requirements for both web and call services that must be available at all times.	<p>A Public Safety Power Shutoff (PSPS) event that impacts PG&E’s entire service territory could affect all of its 5.4 million electric customers. The likelihood of an event of this scale occurring is extremely low, however in an abundance of caution, by next wildfire season, PG&E is looking into additional hardware and capacity to accommodate an outage at this scale. PG&E is currently stress testing its website to accommodate 2.5 million users accessing the site in one hour.</p> <p>Based on the October 9 PSPS event, PG&E recognizes the need to enhance the website bandwidth. Following the event, PG&E’s Information Technology (IT) team has made the following enhancements for any future events:</p> <ul style="list-style-type: none">Increased memory and central processing units (CPUs) on pge.com systems currently in PG&E’s data centerMoved specific components/features of the website to cloud-based solutions that can scale up and down, as needed – these features are the ones most heavily used during the event (e.g., address look up and file download)Strengthened integration between PG&E’s customer, communication, and operation teams to determine and anticipate traffic/load needed to simulate during testingIncreased monitoring thresholds of pge.com so that IT operations is alerted when CPU utilization reaches 60% (a decrease from 80%)Increased availability of systems by leveraging a content delivery network (CDN) such that PG&E swings over to a backup site in the event of high traffic or compromised infrastructure (contracting with Akamai)Conducting detailed review of denial of service providers and other cyber security functions to ensure there are no gapsConfirmed PG&E call center has the bandwidth to withstand up to 3,900 concurrent calls <p>As was done during the last PSPS event, PG&E will also seek assistance and guidance from the State Chief Information Officer (CIO), IT consultants, and other agencies as needed during future events as needed.</p>	<p>Status: completed as of 10/25/19</p> <p>PG&E has confirmed that we are prepared for another PSPS event that could be as large as or larger than the event on October 9. Please refer to the 10/17/19 response for detail on specific actions taken.</p> <p>Other supporting activities are in progress and are described below</p>
1.b	Develop protocols to immediately enlist surge capacity and/or supplemental resources to address shortfalls in real time. Establish specific response-time goals/metrics and triggers to ensure resource availability to meet these goals.	<p>PG&E has already moved specific components/features of the website to cloud based solutions that can scale up and down, as needed – these features are the ones most heavily used during the event (e.g., address look up & file download). PG&E has also increased monitoring thresholds of pge.com so that IT operations is alerted when CPU utilization reaches 60% (a decrease from 80%).</p> <p>PG&E is in the process of establishing and documenting specific response-time goals/metrics and triggers to ensure resource availability to meet these goals. PG&E will provide these goals/metrics to the California Public Utilities Commission (CPUC) as the information becomes available</p> <p>.</p>	<p>Status: completed as of 10/25/19</p> <p>PG&E stabilized the PSPS-related features (e.g., address look up, outage maps, file download). They all have been built to dynamically scale to meet the load that comes to the site. The site is behind a CDN as well and has been in production since Tuesday morning, 10/22/19. They were all tested to 2.5 million transactions per hour. Outage Maps was tested to 3.1 million transactions per hour. Additionally, PG&E has developed and documented “playbooks” for how to redirect and failover to back up systems and has tested the ability to do so should pge.com experience performance issues in the future. The highest peak load we have seen in this current PSPS event is 3.3 million transactions per hour and the CDN is now serving 94.9 percent of the content and internal servers are running at under 10 percent capacity.</p> <p>PG&E response-times for all PSPS features are averaging under one second even during the peak load.</p>
1.c	Perform a risk assessment of business operations and document the utility's capabilities and gaps for handling high traffic to websites, increased call center volume, and potential impacts on utility communications from associated interruption of telecommunications networks.	<p>PG&E is in the process of performing a risk assessment of business operations and documenting the capabilities and gaps for handling high traffic to the website, increased call center volume and potential impacts on utility communications. This information will be used to inform next steps in key focus areas.</p>	<p>Status: completed as of 11/01/19</p> <p>As was done during the last PSPS event, PG&E hosted two people from the State Chief Information Officer (CIO) and IT consultants to review all work completed during the past two weeks. All feedback was positive with no additional recommendations.</p>

No	Issue	Week of 10/14/19 Update	Status
		During the last event, PG&E coordinated with the State CIO to assist with performance and load testing and architectural review of new. PG&E will continue to coordinate with and leverage them, as well as IT consultants, for upcoming events, if needed.	
1.d	Ensure website capabilities that are critical for PSPS information dissemination function in a cloud environment and are thoroughly tested in accordance with industry best practices.	PG&E recognizes website functionality is required now and going forward. PG&E moved specific components/features of the website to cloud based solutions that can scale up and down as needed – these features are the ones most heavily used during the event (e.g., address look up, outage maps). These sites are being performance tested using J Meter and other Amazon Web Services (AWS) and simulate an external load of up to 1 million users accessing the site in two minutes. This is more than double the number of users that accessed the site in two minutes during the previous event. PG&E will scale the website to accommodate known volume and have increased and will continue to increase its external load capacity and bandwidth accordingly. This is anticipated by next wildfire season.	Status: completed as of 10/25/19 PG&E completed all functional and load testing on features and systems required for PSPS. They were all tested to 2.5 million transactions per hour. Outage Maps was tested to 3.1 million transactions per hour. Additionally, PG&E has developed and documented “playbooks” for how to redirect and failover to back up systems and has tested the ability to do so should pge.com experience performance issues in the future. The highest peak load we have seen in this current PSPS event is 3.3 million transactions per hour and the CDN is now serving 94.9 percent of the content and internal servers are running at under 10 percent capacity.
1.e	Perform performance and stress testing of websites, customer portals and underlying infrastructure, develop procedures to identify and manage cyber-attacks (e.g. Denial of Service) that are launched concurrently with a PSPS event, and develop back-up sites as a contingency in case main website goes down.	PG&E will conduct the following performance tests on pge.com monthly with LoadRunner simulating 1 million users in two minutes: <ul style="list-style-type: none">• Load tests – Max load on production is considered• Stress tests – Increased load to check how it performs• Endurance tests – Load test for a longer duration of time• Breakpoint tests – Increase the load until the system crashes PG&E will scale the website to accommodate known volume and have increased and will continue to increase its external load capacity and bandwidth accordingly. This is anticipated by next wildfire season.	Status: completed as of 10/25/19 PG&E completed functional and load testing on systems and features required for PSPS by 10/21/19. We will performance test prior to the start of PSPS events in the future to confirm all systems are performing as needed to support the event.
1.f	Establish a partnership with the California State Threat Assessment Center and the California Cyber Security Integration Center to receive threat information to PG&E networks and to receive State technical assistance when necessary during high profile PSPS events.	PG&E has a close partnership with the California Cyber Security Integration Center (Cal-CSIC) and collaborates on intelligence sharing and receives daily intelligence reporting from the Cal-CSIC to include during PSPS events. PG&E has ongoing collaboration discussions regarding network traffic analysis and incident response. Regarding the California State Threat Assessment System (Cal-STAS), PG&E closely collaborates with the Cal-STAS to include bi-directional intelligence sharing, cyber-incident investigation support and instructional sessions. The Cal-STAS conducts ongoing intelligence collection and sharing regarding PG&E breach support, cyber and typo-squat identification and network scanning to complete Baseline Attack Surface Reports specifically for PG&E.	Status: completed as of 10/17/19
1.g	Establish solutions for handling increased volumes of calls to the call centers, including setting specific response-time goals and ensuring resource availability to meet those goals. To accomplish this, PG&E and the other state IOUs shall increase the workforce in this area so that there are adequate resources to manage this highly critical function.	To support increased call volumes during a PSPS event, PG&E established the following solutions: <ul style="list-style-type: none">• Move to emergency calls only (now known as PSPS Call Strategy which includes down wires, gas leaks, outages and PSPS calls only) with general inquiries being handled by PG&E’s automated telephone system and digital channel.• Utilize multiple staffing levers to supplement existing personnel in the Contact Centers. These levers include: Max Staffing, Billing and Credit Customer Service Representatives (CSRs) and upfront interactive voice recordings (IVR) messaging intended to allow customers to self-serve in the web. This strategy will allow PG&E to meet the response time goals as established by the CPUC metrics listed below: <ul style="list-style-type: none">• Service Level of 76 percent of the calls answered in 60 seconds or less by Live Agent or IVR Emergency calls answered in 15 seconds or less	Status: completed as of 10/25/19 To support increased call volumes during a PSPS event, PG&E has established the following call center strategy to be used, as needed, during future PSPS events: <ul style="list-style-type: none">• Trained >150 Billing and Credit Customer Service Representatives (CSRs) to handle PSPS-related calls• Provided upfront interactive voice recordings (IVR) to allow customers to self-serve and limit call volume• Developed the PSPS Call Strategy, which only accepts emergency calls related to PSPS (e.g., wires down, gas leaks, outages when PSPS is active). Note: this strategy is reconsidered if call volume can be adequately handled using the additional CSRs and IVR messaging PG&E will measure its response time by the established CPUC metrics listed below: <ul style="list-style-type: none">• <u>Goal</u>: 76% of the calls answered in ≤60 seconds by Live Agent or IVR• <u>Goal</u>: Emergency calls answered in 15 seconds or less
2. Coordination with counties and tribal governments			
2.a	Collecting feedback from local governments (cities and counties) impacted by PSPS events that took place the week of October 7, 2019 and	PG&E is committed to listening and gathering feedback from impacted communities. As a first step, on Wednesday, October 16, PG&E leadership held two conference calls with counties impacted by the latest PSPS event. During the calls, PG&E received input about	Status: ongoing as of 12/6/19 update

No	Issue	Week of 10/14/19 Update	Status
	identifying specific actions to be taken to address such feedback.	<p>how the company can better coordinate and communicate with communities during future PSPS events, with a focus on “quick wins” for immediate process improvements.</p> <p>In the coming weeks, PG&E officers will meet in-person with communities impacted by the latest PSPS events. These meetings will provide counties with an additional opportunity to provide feedback on various topics related to the latest events. This includes, but is not limited to, the notification process, event execution, restoration and information needed to better support the community’s response needs.</p> <p>After all meetings are complete, PG&E will identify specific actions from feedback received and address key issues identified as quickly as possible.</p>	Beginning this week, PG&E began sending invites to meet with the emergency management team of every county affected by PSPS events in October 2019. These in-person meetings will be attended by PG&E leaders and are expected to begin the first week in December in order to solicit candid, direct feedback. Responses will be collected and a summary document will be provided to participating counties after all meetings are completed. An action plan is anticipated to be developed in January 2020 in response to key findings and will be shared with both participants and the CPUC.
2.b	Identify resources (Emergency Operations Center liaisons) that can be embedded 24/7 in County Emergency Operations Centers (EOCs) during events. The EOC liaisons shall be trained in emergency response, in accordance with Standardized Emergency Management System (SEMS) and have working knowledge of utility operations and business processes.	<p>Effective immediately, when PG&E’s EOC is activated for a potential PSPS event, PG&E will make liaison representatives available to be embedded in the local jurisdiction’s EOC, if one has activated and a PG&E liaison is requested.</p> <p>By the next wildfire season, PG&E will be coordinating with the State to receive assistance on providing Standardized Emergency Management System (SEMS) training to EOC staff, including the liaison representatives that may be embedded in the local jurisdiction’s EOC. Please see section 4.a for additional information regarding SEMS training.</p>	<p>Status: ongoing as of 11/15/19 update</p> <p>PG&E has contacted Cal OES to schedule SEMS training for its EOC staff and will do so as soon as the training is made available. If Cal OES is not able to offer SEMS training, PG&E will arrange for alternative SEMS training in Q1 of 2020.</p>
2.c	Develop and implement processes that will ensure that County EOC liaisons will have the latest PSPS event information during PSPS events and are enabled and empowered to resolve local issues as they arise.	The PG&E liaison representatives embedded in the County EOCs will have direct communication with PG&E’s EOC and can work with the EOC to resolve any local issues that may arise. At PG&E’s EOC, liaison representative(s) will be dedicated to intake inquiries and track down answers.	<p>Status: completed as of 11/01/19</p> <p>For the October 26 and October 29 PSPS events, PG&E continued to utilize these processes and those further described in section 2.d regarding improved communication structure.</p>
2.d	Establish a more effective communication structure with county and tribal government emergency management personnel. This communications structure shall be separate and unique from general updates to local governments and other stakeholders to allow for emergency personnel to receive the support and information required to properly respond.	<p>During the last event PG&E identified points-of-contacts for each potentially impacted county and tribal government support and respond to unique, local inquiries and will continue to provide points-of-contact in future events. These points-of-contacts will have direct communication with PG&E’s EOC and received information for the local jurisdictions.</p> <p>The point-of-contact is in addition to the following regularly established communication channels:</p> <ul style="list-style-type: none"> • Live calls to Public Safety Answering Points (PSAPs) and County OES. Before customers are notified, PG&E will call primary contacts to provide notice of a PSPS event. • Thrice-daily operational briefing calls. These calls will provide situational awareness updates directly from the PG&E Emergency Operations Center (EOC). • A dedicated 24-hour e-mail and phone line monitored by the PG&E EOC. Partners can reach PG&E EOC staff with any questions or requests for information by e-mailing PGELiaisonOfficer@pge.com. • Automated call, text and e-mail updates throughout the PSPS event. • Information uploaded to the secure data transfer portal and PG&E website. Event-specific information will be uploaded first to PG&E’s secure data transfer portal (pge.com/pspsportal) and then to the publicly available website (pge.com/pspsseventmaps). 	<p>Status: completed as of 10/25/19</p> <p>As noted in section 2b, after PG&E’s EOC was activated, dedicated PG&E points of contact reached out to all potentially impacted counties and tribes. PG&E has found this to be effective in responding to unique, local inquiries quickly, as well as providing event information such as news releases.</p> <p>PG&E also continued to use the regularly established communication channels (noted in the 10/17/19 response to the Commission) to provide event-specific information for the PSPS event (10/23 to 10/25). These include:</p> <ul style="list-style-type: none"> • Live calls to Public Safety Answering Points (PSAPs) and County OES. Before customers are notified, PG&E will call primary contacts to provide notice of a PSPS event (Completed 10/21) • Thrice-daily operational briefing calls. These calls will provide situational awareness updates directly from the PG&E EOC (Started on 10/22). • A dedicated 24-hour e-mail and phone line monitored by the PG&E EOC. Partners can reach PG&E EOC staff with any questions or requests for information by e-mailing PGELiaisonOfficer@pge.com (Ongoing). • Automated call, text and e-mail updates throughout the PSPS event (Initial Notification Sent 10/22). <p>Information uploaded to the secure data transfer portal and PG&E website. Event-specific information is uploaded first to PG&E’s secure data transfer portal and then to the publicly available website (Completed on 10/22).</p>
2.e	Phone calls must be manageable and allow for two-way dialogue with each county and tribal government emergency personnel. The CPUC	As mentioned in section 2.d, PG&E identified and will continue to have points-of-contacts for each county that will allow for two-way dialogue.	Status: completed as of 11/15/19

No	Issue	Week of 10/14/19 Update	Status
	recommends holding calls individually with counties when possible, or at a minimum considering grouping counties in accordance with PG&E identified geographic regions (1-9) or developing some other format. For example, attempting to take questions with hundreds of people on a conference phone call is not feasible.	<p>In addition, to better assist with providing real-time updates, during the last PSPS event, PG&E began utilizing a conference line with an operator for the thrice-daily Operational Briefing calls. This new tool expanded the number of participants that were able to join, ensured participants were able to clearly hear the PG&E situational awareness update and provided a systematic approach for the questions and answers portion of the call. PG&E will be utilizing this tool in future PSPS events and is also considering a WebEx based tool to allow posting of documents and ability to view written questions. PG&E believes there is value to providing consistent information to all potentially impacted communities at the same time and will continue to host thrice-daily calls in future PSPS events.</p> <p>PG&E also understands that the number of participants on these calls can make it difficult to ask questions. Accordingly, PG&E's point-of-contact can help support and respond to unique, local inquiries to streamline the Operational Briefings.</p> <p>As noted above, PG&E will be meeting with the communities impacted by the last PSPS event for feedback. This includes input on the Operational Briefings and whether regional calls would be preferred. Based on the feedback, PG&E may make updates to the call structure before the next wildfire season.</p>	PG&E received guidance from CAL FIRE training officers during the October PSPS events and will implement their recommendation that information be pushed through PG&E's single points of contact assigned to each county, instead of hosting the thrice-daily Operational Briefing calls.
2.f	Develop processes and procedures for sharing information of medical baseline customers that can be impacted by a specific PSPS event. Per CPUC Executive Director directive issued on October 8, 2019, the utilities are expected to share medical baseline information with counties and tribal governments, if requested, without a memorandum of understanding or non-disclosure agreement during PSPS events. Also, utilities must ensure that the information can be shared with-county and tribal government emergency response personnel in a confidential manner that limits access to include only intended recipients of the information.	<p>Recognizing the need for local first responders to assist the vulnerable population when PG&E's EOC is activated for a potential PSPS event, PG&E will follow the process implemented after the October 8 letter from the CPUC, to provide the names and addresses of medical baseline customers within the impacted jurisdiction.</p> <p>To ensure PG&E is providing sensitive customer information in a confidential manner that limits access to only intended recipients, PG&E will continue to work with communities to execute non-disclosure agreements for information for advanced planning.</p>	<p>Status: completed as of 10/25/19</p> <p>Process is in place to share lists of medical baseline customers within the impacted jurisdiction, even without an NDA, as directed by the CPUC.</p> <p>Additionally, as of the 10/23 PSPS event, PG&E began providing to the impacted jurisdictions, on a regular schedule, lists of medical baseline customers who have not confirmed receipt of their notifications. These lists are snapshots in time, and PG&E continues to make contact attempts to contact these customers and confirm receipt of their notifications.</p>
2.g	Develop and validate the list of critical facilities by coordinating with counties, tribal governments and Cal OES ahead of the events.	<p>As part of the overall Community Wildfire Safety Program, in July 2019, PG&E initiated an outreach campaign to 267 cities and counties to confirm and verify critical facilities and infrastructure within their jurisdiction.</p> <p>As part of the campaign, a request was made to each jurisdiction to identify additional facilities and infrastructure they deem to be critical and believe ought to be included in PG&E's critical facilities and infrastructure list. To date, PG&E has received input from over 85 cities and counties. PG&E has reviewed and updated records with a critical facility identifier based on feedback received, including adding over 500 critical facilities to PG&E critical facility designation (where an address match was found), and confirmed over 800 critical facilities were already designated as critical.</p> <p>These critical facility designations are leveraged by PG&E to provide prioritized restoration during any outage (including PSPS), as well as for providing prioritized customer notifications. These notifications include a specialized notification script in alignment with public safety partners.</p> <p>The notifications direct them to PG&E PSPS event maps page, includes a link to a webpage of consolidated impacted sites and provides an option to connect with PG&E's call center for escalated needs.</p> <p>Finally, these designations are also used to ensure up to date contact information is obtained and maintained annually for these facilities.</p>	<p>Status: ongoing as of 10/25/19 update</p> <p>As part of this PSPS event, once PG&E's EOC was activated, dedicated PG&E point of contacts coordinated with potentially impacted counties and tribes to review the proposed scope of the event and any critical facilities within the area. This is to help ensure PG&E has identified all of the potentially impacted critical facilities prior to de-energization.</p> <p>Additionally, during an active PSPS event, PG&E customer representatives are making direct contact with assigned critical facilities customers to supplement the automated notifications that these critical facilities receive during an event.</p> <p>PG&E continues to maintain critical facility designation in alignment with the CPUC's PSPS definition of critical facilities. PG&E will maintain an open dialog with local agencies, welcome feedback from these agencies, and will continue to identify additional facilities in their jurisdictions if necessary.</p> <p>PG&E will utilize these processes for future PSPS events.</p>

No	Issue	Week of 10/14/19 Update	Status
2.h	Identify impacts on major transportation systems, including tunnels and railroad systems. PG&E shall coordinate with the California Department of Transportation (Cal TRANS) and the appropriate railroad and rail transit entities ahead of events to identify major transportation infrastructure that needs to be monitored during PSPS events.	<p>PG&E will continue to coordinate with transportation customers which include CalTrans, BART and other critical service providers to further understand and more effectively plan for the various PSPS outage scenarios. Included in this planning should be the societal impacts that a disruption in service, whether highway or public transport, will have on PG&E's communities and customers.</p> <p>PG&E proposes that California Governor's Office of Emergency Services (Cal OES) lead a comprehensive review of potential impacts of extended outages (e.g., PSPS, earthquakes) on all major transit providers, with support from those customers, as well as PG&E and the other California IOUs.</p>	<p>Status: ongoing as of 10/25/19 update</p> <p>In the current and recent PSPS events, PG&E has leveraged a review process at both the regional and local level to address and limit potential transportation disruptions based on the anticipated customer impacts, such as by providing backup power.</p> <p>Additionally, as described in section 3.a, PG&E is also working with CalTrans (in addition to counties and CalOES) to establish a means to share maps that illustrate potential outage impacts through ArcGIS Online cloud sharing, which allows near real-time, synchronized connection to PG&E data systems for their use in evaluating potentially impacted areas during PSPS events.</p> <p>PG&E will utilize these processes for the future PSPS events.</p>
2.i	Identify critical fuel supply needs and develop advance plans for coordination with fuel suppliers and refineries to ensure continuity of fuel supplies.	<p>PG&E will continue to coordinate with fuel suppliers and refineries to further understand and more effectively plan for the downstream impacts of a PSPS event on the ability to safely operate refineries. Included in this planning should be the societal impacts that a disruption to the fuel supply has on the transportation sector including airports, gas stations and other fuel-based businesses.</p> <p>PG&E proposes Cal OES lead a comprehensive review of potential impacts of extended outages (e.g., PSPS, earthquakes), on refineries and business dependent on fuels for operations, with support from those customers, as well as PG&E and the other California IOUs.</p>	<p>Status: ongoing as of 10/25/19 update</p> <p>A performed during October PSPS events, PG&E will continue to coordinate with fuel suppliers and refineries to further understand and more effectively plan for the downstream impacts of a PSPS event on the ability to safely operate refineries.</p> <p>PG&E will utilize these processes for future PSPS events.</p>
2.j	Develop processes and procedures for sharing information on critical facilities with counties and local governments during events. This must include a solution for sharing information with counties and local governments even if there is no existing memorandum of understanding of non-disclosure agreement.	<p>Currently, PG&E provides the names and addresses of critical facilities within an impacted jurisdiction through a secure data transfer portal to those that have an executed non-disclosure agreement.</p> <p>PG&E understands the CPUC's preference is that the information is provided, when PG&E's EOC is activated for a potential PSPS event, to any impacted jurisdiction that is requesting the information. PG&E will work with the CPUC to determine the process for sharing critical facilities information to jurisdictions so that it meets the local response needs while complying with customer privacy laws and regulations.</p>	<p>Status: completed as of 10/25/19</p> <p>PG&E provides the names and addresses of critical facilities within the impacted jurisdiction through a secure data transfer portal, if requested. The information is accompanied by an email from PG&E to the interested jurisdiction with additional guidance regarding confidentiality and privacy regulations.</p> <p>For advanced planning purposed, PG&E is providing sensitive customer information in a confidential manner that limits access to only intended recipients. PG&E will continue to work with counties and local governments to execute non-disclosure agreements for this information.</p>
2.k	Coordinate advance planning with county and tribal governments to identify locations for PSPS-specific community resource centers. These locations should be identified in a collaborative manner with local emergency response personnel and include agreement that the locations are appropriate to meet local requirements and needs. The list of possible locations for community resource centers should be known to local governments ahead of events and, during events, the coordination should be focused on which specific location to open. PG&E shall also work with counties and local governments to reach understanding on standards for operation (e.g., services available, operational hours).	<p>PG&E recognizes this is needed and will continue to work with local government and tribes to receive feedback on potential Community Resource Center (CRC) locations. PG&E has identified CRC locations in 40 counties, and since May 2019, has been actively working to execute agreements for sites with the property owners identified by the counties.</p> <p>The last PSPS event highlighted the opportunity to more effectively plan and work with local governments to understand their needs and preferences for location of CRCs, and to update PG&E's selection criteria to include cell service availability.</p> <p>PG&E plans to re-circulate the list of CRC sites to cities and counties and continue to solicit their feedback and suggestions on better locations. This will result in outreach to identified property owners to secure agreements.</p>	<p>Status: ongoing as of 11/22/19</p> <p>For this wildfire season, the EOC process has been improved to first contact the tribes, counties, and local Offices of Emergency Services with the affected customer population and a list of CRCs executed in the past. PG&E either asks for approval to set up the CRC in the location last utilized, or if the County prefers to move the CRC to a different location. If the county requests the CRC location to be moved, PG&E works with the property owners to execute a new agreement.</p> <p>Once wildfire season concludes, PG&E still plans to develop a CRC playbook in collaboration with local governments to understand their general needs, preferences, and priorities for CRC locations, while also clarifying the criteria with local agencies for mobilizing CRCs. To build out the playbook, PG&E will leverage previous input received from counties and tribes and will re-circulate the list of potential CRC sites to solicit more feedback.</p>

No	Issue	Week of 10/14/19 Update	Status
2.i	Plan town hall style meetings or in-person public information dissemination gatherings to report back to the impacted communities following the PSPS event.	<p>In preparation for next wildfire season, PG&E will be conducting the following outreach as soon as possible, which leverages existing plans and lessons learned from this year's engagement outreach strategy:</p> <ul style="list-style-type: none"> • Meetings with cities, counties, customers and community groups • Community open houses across the service area • Planning workshops with cities, counties and public safety agencies • Monthly informational webinars and podcasts • Weekly meetings with state agencies including the CPUC, Cal OES and CAL FIRE and the other investor-owned utilities <p>PG&E will also leverage existing customer research channels to share, test and modify customer communications and experience.</p>	<p>Status: ongoing as of 11/22/19 update</p> <p>As the end of wildfire season approaches, PG&E is finalizing the plan for 2020 in-person customer outreach, with the intent to start community open houses as soon as the first quarter. The tentative schedule for community open houses will be developed considering 2019 PSPS event experience (i.e. frequency, duration, etc.). Information covered will include identified areas of improvement based on after action reviews by PG&E as well as city, county, customer, and other stakeholder feedback, and subsequent related progress. This engagement plan will be incorporated into the greater Community Wildfire Safety Program Open House plan, to be executed between the 1st and 3rd quarters of 2020.</p>
3. Accuracy and availability of maps			
3.a	Work with Cal OES to develop better processes for sharing maps, including working on following a model that includes direct integration between respective GIS systems. Cal OES has worked with utilities, including PG&E, to ensure maps with planned and actual PSPS impacts are provided in a timely manner. During the most recent PSPS event, PG&E was consistently falling behind on providing maps that matched its latest estimates of PSPS impacts.	<p>PG&E has established a process to create potential outage maps and data products (KMZs, GIS shapefiles and PDF) as soon as the event scope is established by the company's meteorology teams. PG&E has received and incorporated input from Cal OES on the methodology for creating the buffered outage polygons used to illustrate impact areas on these maps, as well as alignment on data products with data summary files. As part of publishing event data, PG&E creates data products which are posted to a secure data transfer portal for advance notice to state and local agencies, and public data products which are posted to the PG&E website.</p> <p>Based on feedback from the last event, PG&E is evaluating different methods for producing maps that provide a higher level of precision of the potential outage impacts. Effectively immediately, PG&E will work with Cal OES and other agencies to refine the process for sharing maps, including working on a model that more effectively integrates between respective GIS systems.</p>	<p>Status: completed as of 11/01/19</p> <p>PG&E has established an ARC GIS cloud sharing platform with Cal OES for sharing potential PSPS outage maps.</p>
3.b	Establish processes and systems for distributing maps with boundaries to impacted counties and tribal governments that correspond to the latest PSPS impact information being provided.	<p>PG&E currently shares data products and maps to agencies through a secure data transfer portal. In order to enable more efficient data product sharing, PG&E is now working on a sharing process using an online GIS portal, which will be available this wildfire season.</p> <p>In addition, as stated in section 3.a, PG&E has received and incorporated input from Cal OES on the methodology for creating the buffered outage polygons used to illustrate impact areas on these maps. Based on feedback from the last event, PG&E is evaluating different methods for producing maps that provide a higher level of precision of the potential outage impacts.</p>	<p>Status: ongoing as of 11/01/19 update</p> <p>To continue our support established from the 10/23 PSPS event, PG&E offered GIS specialist technical support for the counties affected by the 10/26 and 10/29 PSPS events.</p> <p>As of 10/31, another 5 agencies accepted GIS specialist assistance in addition to the 18 agencies that accepted this assistance last week.</p> <p>PG&E will continue to offer GIS technical support to all counties in our service territory.</p>
3.c	Develop dynamic maps that can be used for customers and members of the public to look up their specific address and obtain information about the PSPS event (potential for de-energization, status of de-energization, restoration estimation). These mapping solutions also need to be performance and stress tested to ensure they will be available during the most critical times (i.e., high volume web traffic).	<p>PG&E recognizes this is needed and has a solution in place for dynamic maps that customers can use to look up their specific address.</p> <p>As referenced in section 3.a, PG&E is evaluating different methods for producing maps with higher level of precision of the potential outage impacts. PG&E recognized that during the last event, the maps were not available due to the website failure. PG&E has already moved this specific component/feature of the website to cloud based solutions that can scale up and down, as needed. For additional information on the performance and stress testing, please reference section 1.d.</p> <p>Once de-energization is complete, customers are directed to the website to receive estimated time of restoration (ETOR). As a contingency, if this website is down, users will get automatically redirected to a fail over site "Critical Web" which provides the same outage information. This contingency is currently in place.</p>	<p>Status: ongoing as of 11/15/19 update</p> <p>In addition to the dynamic maps currently in place for customers to look up their specific address and obtain PSPS event information, PG&E will continue to enhance and improve PSPS maps to provide a higher level of precision of the potential outage impacts.</p>
3.d	Develop processes and procedures for back-up mapping solutions in case of GIS failure (e.g., partnering with additional industry providers of	PG&E plans to move to a secure online GIS system (REST) to enable easier and more reliable file sharing.	Status: ongoing as of 12/6/19 update

No	Issue	Week of 10/14/19 Update	Status
	maps and having the ability to promptly create maps with PSPS boundaries and make publicly available.)	Since every PSPS event impacts different areas of PG&E's territory and portions of the company's circuits, it is important to be able to create maps based on the specific event. PG&E will continue to look into alternative options and contingencies to account for a potential GIS failure.	<p>PG&E uses GIS technology to perform two functions for a PSPS event: creation of maps and sharing of maps.</p> <p>For map creation, PG&E utilize enterprise GIS technology that is built to our Mission Critical Tier 1 standard. By June 2020, PG&E will put in place procedures and any required technology to facilitate a secondary solution for map creation in the event of a GIS failure.</p> <p>For map sharing, PG&E shares file-based maps with critical facilities and public safety partners via PG&E's Enterprise Secure File Transfer (ESFT) solution in addition to a cloud-based solution. In October 2019, PG&E partnered with ESRI to utilize their ArcGIS Online system to provide an interactive map for the public, critical facilities and public safety partners. In addition, secure GIS REST services have been made available to government agencies. By June 2020, PG&E will put in place procedures and any required technology to facilitate a secondary solution for online map sharing in the event of a GIS failure.</p>
3.e	Develop capabilities to make maps available beyond the PG&E website, such as providing maps to media outlets and on social media and alternative platforms.	<p>PG&E recognizes that during the last PSPS event the company's ability to reliably share maps of impacted areas failed, causing confusion on a number of levels. As noted in Section 1, PG&E has enhanced the capacity and bandwidth of pge.com. With these improvements now in place, pge.com will remain the primary source of maps for customers, media and the general public during shutoffs. As pge.com has capabilities to allow for address specific lookups and downloads, it is the most useful source of information.</p> <p>PG&E will augment the website with additional event-specific information made available through social media channels. Additionally, similar to the recent event, PG&E is prepared to share county PDF maps via social media channels should pge.com experience any issues. PG&E has also looked into alternative platforms to share maps with media and other external parties if the website were to experience any issues and is currently working to harden and enhance those platforms.</p>	<p>Status: completed as of 10/25/19</p> <p>PG&E will continue to augment the website with additional event-specific information made available through social media channels. Additionally, similar to the recent event, PG&E is prepared to share county PDF maps via social media channels should pge.com experience any issues. PG&E has also looked into alternative platforms to share maps with media and other external parties if the website were to experience any issues and is currently working to harden and enhance those platforms.</p>
4. Mobilizing, organizing, and decision-making for widespread emergency events			
4.a	PG&E must follow Standardized Emergency Management System (SEMS) in emergencies and PSPS events to ensure consistency among emergency management and public safety agencies. PG&E must ensure that its personnel involved in PSPS response in Emergency Operations Centers and its liaisons to counties and tribal government emergency personnel are trained in SEMS. If PG&E requires assistance in SEMS training, PG&E shall communicate training requirement needs to Cal OES and the CPUC.	<p>PG&E recognizes the need to train personnel involved in PSPS response in EOC and its liaisons to counties and tribal government emergency personnel in Incident Command System (ICS) concepts. At the request of the CPUC, PG&E created a plan to certify the applicable personnel at the FEMA/NIMS level and shared the plan with Cal OES. PG&E received feedback from Cal OES with the request to consider following the SEMS process in lieu of the FEMA plan, and leverage the California Specialized Training Institute.</p> <p>PG&E accepted this feedback and built a plan to certify applicable personnel in SEMS with the intent to implement beginning Q1 of 2020. PG&E attended an Executive PSPS Meeting with State Agencies on September 30, 2019 and learned of the potential of SEMS training being made available to IOU's at Cal OES. PG&E intends to participate in these training sessions offered by the State as soon as the training schedule is made available. PG&E will keep the internal SEMS training plan on file as a contingency measure.</p>	<p>Status: ongoing as of 11/15/19 update</p> <p>PG&E has contacted Cal OES to schedule SEMS training for its EOC staff and will do so as soon as the training is made available. If Cal OES is not able to offer SEMS training, PG&E will arrange for alternative SEMS training in Q1 of 2020.</p>
4.b	Develop a process for providing enhanced transparency and visibility of PSPS decision-making process during events, including the factors that PG&E is taking into account as it considers de-energizing lines.	The factors taken into account for the decision to de-energize lines are listed in PG&E's PSPS report to the CPUC in accordance with ESRB-8, submitted to the CPUC for each PSPS event. PG&E will work with the CPUC and other agencies to provide further transparency in the decision-making process and to meet their preferred mode of receiving information.	<p>Status: ongoing as of 11/01/19 update</p> <p>Similar to the meetings to provide clarity on the event footprint and scope of the October 23 PSPS event, PG&E met with State Agencies on 10/25 to provide an overview of the event footprint and scope of the October 26 PSPS Event. In this discussion, PG&E and State Agencies discussed PG&E's meteorological analysis of the event, expected system impacts across transmission and distribution, the expected event timeline, and expected county and customer impacts as scoped at that time.</p> <p>PG&E will continue to offer operational briefings with State Agency leadership on the decision making process and impacts for all PSPS events.</p>

No	Issue	Week of 10/14/19 Update	Status
4.c	Document the utility's decision-making process for PSPS events, including identifying and documenting the authorities of the Senior Officer in Charge, or equivalent position, and how all elements of the utility emergency operation are clearly aligned under the command of this position.	<p>The decision-making process has been documented and shared with the responsible PG&E participants involved in the decision. For a PSPS event, the Officer in Charge (OIC) is responsible for making the following decisions:</p> <ul style="list-style-type: none">• Approving the transmission lines directly in-scope for the PSPS event• Approving initial customer notifications• Approving de-energization of distribution and transmission circuits within the scope• Approving “All Clear” and the start of restoration activities <p>The EOC commander for each event is charged with executing each OIC decision.</p>	Status: completed as of 10/17/19
4.d	Identify and document all executives with the title of Vice President or equivalent, and above, with responsibilities in PSPS decision-making	<p>The following Vice Presidents have PSPS decision making responsibilities for the 2019 wildfire season:</p> <ul style="list-style-type: none">• Michael Lewis (Senior Vice President of Electric Operations)• Sumeet Singh (Vice President of Asset & Risk Management, Community Wildfire Safety Program)• Ahmad Ababneh (Vice President of Electric Operations Major Projects and Programs) <p>In 2020, the responsibility will be expanded to the following Vice President of Electric Operations:</p> <ul style="list-style-type: none">• Tom French (Vice President of Electric Transmission Operations)• Ken Wells (Vice President of Electric Distribution Operations)	Status: completed as of 10/17/19
4.e	Identify and document all board members, and board committees, with oversight of PSPS decision-making.	PG&E's Board of Directors do not have direct oversight of PSPS decision-making. In addition, the Compliance and Public Policy board committee provides oversight of the Wildfire Safety Plan which also includes the PSPS program.	Status: completed as of 10/17/19
4.f	Describe all ways in which the utility has used monetary and other incentives to ensure that executives make PSPS decisions that protect life and safety.	The current annual incentive plans at PG&E are the Corporate CEO Plan and Short-Term Incentive Plan (applicable to officer-level and below employees). While these plans do not have a specific PSPS measure, they do include a focus on wildfire risk reduction and overall public safety, and incentives under both plans can be reduced to zero by the Board of Directors should a catastrophic event occur. PG&E does not currently have an approved incentive plan for senior officers.	Status: completed as of 10/17/19
5. Restoration and mutual assistance			
5.a	PG&E must take all possible measures to accelerate restoration from de-energization during PSPS events. Per Commission Decision 00-05-002*, after major storms, utilities must restore service in less than 12 hours on average. At a minimum, this should be the goal for utility-caused outages such as a PSPS event. PG&E shall also request resources through-mutual assistance processes early in an event. In instances PG&E believes it can perform restoration with internal resources, it shall evaluate if it can perform the work faster with the support from mutual assistance and request mutual assistance resources if it can accelerate restoration time. PG&E must also take into account the possibility of outages and fires unrelated to PSPS and the need to perform restoration work in response to those events as well.	<p>PG&E has taken measures to accelerate the restoration process resulting from PSPS events. PG&E also continues to conduct After Action Reviews to identify gaps and create corrective actions to strengthen existing processes.</p> <p>PG&E developed a PSPS restoration process and plan in 2019, applicable to both the transmission and distribution system. The PSPS restoration plan includes air resources in the form of thirty-five (35) Exclusive Use Helicopter contracts and an elaborate ground resource plan. Assignment of air resources are defined and executed from within the Operations Section at the EOC. The ground resource plan includes an ICS-based command structure, designed to increase safety margin for PG&E employees performing patrol and restoration activities, while reducing overall restoration time. With regard to the distribution system, custom circuit segmentation plans were established with the intent to place the distribution system in a favorable posture to support safe and rapid restoration. These circuit segmentation plans are implemented immediately following de-energization and in advance of the “All Clear” being declared by the OIC.</p> <p>In addition, an Electric Distribution Emergency Center (EDEC) was formed to coordinate operational activities with the existing Electric Transmission Emergency Center (ETEC), both of which report to the Operations Section of the EOC. The EDEC and ETEC teams coordinate the de-energization and re-energization operating sequences based on a number of factors,</p>	Status: completed as of 10/17/19

No	Issue	Week of 10/14/19 Update	Status
	*00-05-022	<p>including but not limited to transmission system stability (in coordination with CAISO), customer load restoration, restoration of critical and essential customers, etc.</p> <p>PG&E evaluates the scope of a PSPS event and makes a determination with respect to requesting additional resources through existing mutual assistance protocols. PG&E considers the results of the mutual assistance request (number of crews committed by foreign utilities and municipalities), as well as the anticipated time it will take for these crews to arrive on the PG&E system, receive onboarding training per process and be deployed into the field resource pool. PG&E considers whether or not an augmented field workforce will reduce overall restoration times if it believes it can perform restoration solely with internal resources, including onsite contractors. PG&E also takes into account the potential need for mutual assistance crews to perform repair activities associated with damage found following PSPS events, non-PSPS-related power outages and active fires.</p> <p>PG&E acknowledges Commission Decision 00-05-022 and the Joint Proposal cited within. PG&E also acknowledges Standard 12: Restoration Performance Benchmark For A Measured Event as defined in Attachment 1. Because Commission Decision 00-05-022 predates the establishment of PSPS plans by any California IOU, PG&E's understanding is that it was intended to apply to traditional weather and storm-related events as opposed to PSPS-related power outages. PG&E welcomes discussion regarding whether to incorporate PSPS-related outages into the Commission Decision, including the establishment of restoration metrics.</p> <p>Nevertheless, PG&E believes PSPS restoration performance in 2019 across events that occurred in June, September and on October 5th are within expectations as defined in Commission Decision 00-05-022. PG&E is currently evaluating restoration metrics associated with the October 9th PSPS event.</p>	
5.b	PG&E must take all possible measures to provide accurate restoration estimates to emergency personnel and the public at large. PG&E must also develop processes and procedures to share real time restoration numbers with counties and tribal governments.	<p>PG&E is taking all possible measures to provide accurate restoration estimates to emergency personnel and the public at large. PG&E has also developed an internal process to create and manage ETOR information for agencies and customers, specific to PSPS events. PG&E continues to conduct After Action Reviews to identify gaps and create corrective actions to strengthen existing processes.</p> <p>Power outages associated with PSPS events are managed and responded to differently than traditional weather-related power outages, in the fact that power is proactively shutoff in advance of high wind activity. When wind conditions are deemed safe, PG&E crews are required to perform visual patrols via ground, foot and air prior to re-energizing equipment and restoring customers. PG&E has created an internal tool to assist in the creation of ETOR's associated to PSPS events. The internal tool factors in the number of miles of conductor that need to be patrolled and number of resources needed to perform the patrol. This data, coupled with the duration of the weather event, informs the overall creation of ETORs.</p> <p>ETORs are communicated to agencies via state and county agency conference calls throughout the PSPS event. In addition, ETORs are communicated to customers and the broader public via media press releases, social media channels, the pge.com webpage and blast IVR messages in which customers can choose how they want to be informed (telephone, text message, email, etc.). In addition, customers can call PG&E and speak to a Customer Service Representative to obtain an ETOR.</p> <p>PG&E has recently developed restoration status reports that are communicated to County Agencies on a periodic basis. Reports include number of customers impacted, number of customers restored, number of medical baseline customers impacted, number of medical baseline customers restored, number of critical and essential customers impacted, number of critical and essential customers restored. The report provides these details on a county by</p>	<p>Status: completed as of 11/01/19</p> <p>PG&E has added tribal governments to its restoration reporting that includes a County by County restoration list.</p>

No	Issue	Week of 10/14/19 Update	Status
		county basis – restoration progress is communicated on the state and county agency conference calls. PG&E intends to expand this report to include tribal governments.	
6. Consultants and resources on call			
6.a	PG&E must prepare for situations where unexpected issues or events (e.g., wildfire, earthquake, cyber-attack etc.) occur concurrently with a PSPS event. It is not possible to anticipate every possible scenario and/or issue that can arise which could compound a PSPS event. Nevertheless, PG&E must take steps to have resources of various capabilities available in order to scale a response and assist with problem solving. This could, for example, involve standing contracts with a range of technical experts and general consultants who are available to step-in and manage issue resolution. PG&E shall develop a list of existing and possible future agreements for on-call resources that can be called upon in case of an emergency.	PG&E recognizes the need to be prepared for situations where unexpected issues or events occur concurrently with a PSPS event. PG&E intends to take steps to have resources of various capabilities available in order to scale a response and assist with problem solving. PG&E already maintains existing contracts with PricewaterhouseCoopers and Cadmus contract agencies. To further augment this support capability, PG&E is pursuing a contract with Accenture with a deliberate focus on crisis management and event response.	Status: Ongoing as of 11/27 update PG&E continues to pursue a contractual arrangement with Accenture or similarly experienced Subject Matter Experts with experience in crisis management and event response, to augment existing contractual arrangements already on file with PwC and Cadmus. PG&E anticipates closure of this action by Q1, 2020.
7. Steps to minimize scope of future PSPS			
7.a	Overview of risk-based models PG&E has employed for prioritizing the hardening of infrastructure. As part of this description, identify factors that comprise that model and the weight ascribed to it, and also describe any other feature of this model.	<p>PG&E has developed a circuit (e.g., distribution or transmission line) prioritization model for both distribution and transmission assets to determine a wildfire risk score for each circuit based upon different components of risk. This wildfire risk score establishes the priority of hardening efforts for distribution and transmission circuits.</p> <p>Wildfire risk is calculated using three components: likelihood of failure, likelihood of spread and consequence, and egress. These three components are defined as follows:</p> <ul style="list-style-type: none">• Likelihood of failure: relative risk of a circuit causing an outage and ensuing ignition• Likelihood of wildfire spread and consequence score: relative probability of ignition spread and quantity of homes or timber affected if ignition occurs• Egress score: ease of access to a community exit and extent of exit, for a mass evacuation <p>For transmission assets, additional factors were also considered when developing a transmission circuit (e.g., line) risk scoring. This includes the consideration of the operational priority list of transmission lines from PG&E's Grid Operations, the list of the top 20 Fire Index Areas (FIAs), and transmission system modeling. The top 20 FIAs were identified based on analysis of the past 30 years of weather data and 11 years of outage history and identify FIAs that rank highest in terms of likelihood of experiencing a PSPS event. Transmission system modeling considers the age, design, and historical operational performance to determine the likelihood of a specific transmission asset failure under certain wind loading conditions.</p> <p>Because of these other factors to consider, transmission assets were prioritized in the following order:</p> <ul style="list-style-type: none">• Transmission lines that met three critical conditions: a) high operational priority (as defined by PG&E's Grid Operations), b) high wildfire risk area, and c) within the top 20 FIAs based on weather conditions• Transmission lines with both a) high operational priority and b) high wildfire risk• Transmission lines that are within the top 20 FIAs and high wildfire risk areas. Ranking follows the results of transmission system modeling by asset and wind speed percent de-rate• Remaining transmission lines in high wildfire risk areas ranked by wildfire risk score	Status: ongoing as of 10/17/19 update

No	Issue	Week of 10/14/19 Update	Status
7.b	Summary of hardening priority levels ascribed to infrastructure that was shut off in PSPS and how prior hardening efforts could have been adjusted to minimize the scope of this PSPS event.	<p>PG&E is in the process of compiling the hardening priority for all electric circuits during this PSPS event and will provide the hardening levels ascribed to these circuits in PG&E's next update to the commission.</p> <p>Distribution: As part of post-PSPS analysis, PG&E will evaluate both the hardening efforts completed and any damage or hazards found on circuits that were de-energized. This analysis will inform PG&E's hardening prioritization efforts and potential PSPS thresholds. As PG&E continues to collect additional operational performance information on hardened portions of its system, PG&E plans to calibrate its PSPS thresholds with actual asset performance information on a continuous basis as more data is collected. Going forward, PG&E expects to adjust the scope of future PSPS events to account for data supported system hardened performance.</p> <p>Transmission: As described in the response to 7a, PG&E has completed modeling of its transmission system that considers the likelihood of a specific transmission asset failure under certain wind loading conditions. This model factors the age, design and past operational performance to determine the likelihood of a transmission asset failure during a wind loading conditions. This information was taken into account to be able to minimize the scope of this PSPS event.</p>	<p>Status: Completed as of 11/27</p> <p>PG&E has compiled a summary of the hardening priority for each of the distribution and transmission lines that were shut-off for the 10/9 event. This summary is included in Appendix A for this update.</p> <p>In regard to how hardening priority efforts could have been adjusted, PG&E is further assessing impacts of past PSPS events to determine how the size and scope of future PSPS could be minimized. Potential solutions include installation of additional remote-control operated switching devices and strategically located DERs and/or microgrids, as well as system hardening efforts. In addition, PG&E is reviewing meteorological information from past PSPS events to inform where potential PSPS events are more likely to occur than in other areas, which will further inform hardening priorities and any other potential solutions.</p>
7.c	In the immediate term, PG&E should consider alternative mechanisms of reducing scope of PSPS events, particularly by prioritizing risk-reduction measures for distribution and transmission lines that serve larger populations and critical infrastructure.	<p>In the intermediate term, PG&E is exploring the following for immediate action that can be taken to minimize the size and scope of PSPS events. This includes:</p> <ul style="list-style-type: none">• Accelerate the installation of additional sectionalizing devices that provide more flexibility for reducing the number of customers impacted by PSPS events• Accelerate targeted transmission and distribution system hardening for locations that have been impacted repeatedly during the last few PSPS events to minimize risk of line de-energization• Continue enhanced vegetation management efforts along lines that traverse high-fire threat district Tier 2 and Tier 3 areas• Identifying locations and pre-installing temporary mobile generation to critical load system pockets and customers that may be affected in future PSPS events• Leveraging transmission asset performance information obtained from this year's PSPS events to calibrate the current transmission system model to validate, and adjust the likelihood of transmission asset failure• Accelerating the Right-of-Way Expansion Program (Vegetation) affecting critical transmission lines during recent PSPS	<p>Status: ongoing as of 10/17/19 update</p>
8. Additional Assistance			
8.	If PG&E requires additional assistance from the State in order to execute this critical mission, PG&E needs to communicate what resources it needs and the CPUC will work with State agency partners to take appropriate steps	<p>PG&E requires assistance from the state to identify and maintain an up to date list of critical state services that can be shared with PG&E in advance of and during PSPS events.</p> <p>PG&E will also work with the CPUC to determine the process for sharing critical facilities information to jurisdictions so that it meets the local response needs while complying with customer privacy laws and regulations.</p> <p>In addition, PG&E proposes that California Governor's Office of Emergency Services (Cal OES) lead a comprehensive review of potential impacts of extended outages (e.g., PSPS, earthquakes), on all major transit providers, refineries, and business dependent on fuels for operations, with support from those customers as well as PG&E and the other California IOUs.</p> <p>By the next wildfire season, PG&E will be coordinating with the State to receive assistance on providing Standardized Emergency Management System (SEMS) training to EOC staff,</p>	<p>Status: Ongoing as of 12/6/19 update</p> <p>PG&E will continue to identify areas needing assistance from the Commission and other State and local agencies and will provide an update of those efforts in its March 2020 PSPS Progress Report.</p>

		including the liaison representatives that may be embedded in the local jurisdiction's EOC. Please see section 4.a for additional request regarding SEMS training.	
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PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX A
HARDENING PRIORITY FOR 10/9 PSPS EVENT
DE-ENERGIZED LINES

Hardening Priority Level is ranked in sequential order across PG&E's entire service territory for both transmission and distribution with 1 being the highest priority. Hardening Priority Level is currently assessed for circuits within CPUC High-Fire Threat District (HFTD) Tier 2 and Tier 3 only. At this time, circuits in Tier 1 have not been prioritized for system hardening work. The two tables below capture the subset of circuits in PG&E's service territory that were de-energized for the October 9-12 PSPS event.

Circuits labeled as "non HFTD" are located outside of the CPUC HFTD. These circuits or portions of circuits are impacted for one of two reasons: (1) indirect impacts from transmission lines being de-energized or (2) the non-HFTD portion of the circuit are conductive to the HFTD at some point in the path to service.

Circuits with an asterisk (*) were sectionalized during the event to further reduce customer impact.

Table 1-1. Distribution

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
ALLEGHANY 1101	33	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ALLEGHANY, CALPINE, COURTLAND, DOWNIEVILLE, GOODYEARS BAR, SIERRA CITY
ALLEGHANY 1102	75	TIER 3	ALLEGHANY, NEVADA CITY, WASHINGTON
ALTO 1120*	638	TIER 2, PARTIALLY OUTSIDE HFTD	MILL VALLEY
ALTO 1125*	66	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MILL VALLEY, SAUSALITO, STINSON BEACH
ANDERSON 1101	336	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD
ANDERSON 1102	Tier 1	NON HFTD	ANDERSON
ANDERSON 1103	684	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, FAIRFIELD, MILLVILLE, PALO CEDRO, REDDING
ANITA 1106*	315	TIER 2, PARTIALLY OUTSIDE HFTD	CHICO
ANNAPOLIS 1101	154	TIER 2	ANNAPOLIS, CAZADERO, STEWARTS POINT
APPLE HILL 1104	50	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CAMINO, EL DORADO HILLS, PLACERVILLE, POLLOCK PINES
APPLE HILL 2102	90	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CAMINO, EL DORADO, FIDDLETOWN, GRIZZLY FLATS, MOUNT AUKUM, PLACERVILLE, PLYMOUTH, POLLOCK PINES, SHINGLE SPRINGS, SOMERSET

ARBUCKLE 1104	413	TIER 2	ARBUCKLE, DUNNIGAN, WILLIAMS
ARCATA 1105	Tier 1	NON HFTD	ARCATA, MCKINLEYVILLE
ARCATA 1106		NON HFTD	ARCATA
ARCATA 1121	623	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, BAYSIDE, MCKINLEYVILLE
ARCATA 1122	479	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, BAYSIDE, EUREKA, KNEELAND
ARCATA 1123	Tier 1	NON HFTD	ARCATA
ARVIN 1101	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	ARVIN, BAKERSFIELD, LAMONT
AUBURN 1101	656	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
AUBURN 1102	631	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
BANGOR 1101	424	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BANGOR, BROWNS VALLEY, BROWNSVILLE, DOBBINS, MARYSVILLE, OREGON HOUSE, OROVILLE, RACKERBY, SACRAMENTO
BASALT 1106	238	TIER 2	NAPA, SONOMA
BEAR VALLEY 2105*	120	TIER 2, TIER 3	CHOWCHILLA, COULTEVILLE, GROVELAND, MARIPOSA, SOLEDAD
BELL 1107	165	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, WILTON
BELL 1108	486	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, MEADOW VISTA
BELL 1109	607	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
BELL 1110	225	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
BELLEVUE 2103*	111	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PENNGROVE, ROHNERT PARK, SANTA ROSA
BEN LOMOND 0401	104	TIER 3	BEN LOMOND, BOULDER CREEK, FELTON

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
BEN LOMOND 1101	117	TIER 3	BEN LOMOND, BOULDER CREEK, BROOKDALE
BIG BASIN 1101	49	TIER 3	BOULDER CREEK, SANTA CRUZ, WATSONVILLE
BIG BASIN 1102	150	TIER 2, TIER 3	BEN LOMOND, BOULDER CREEK, LOS GATOS, SANTA CRUZ, STOCKTON
BIG BEND 1101	46	TIER 2, TIER 3	OROVILLE
BIG BEND 1102	39	TIER 3, PARTIALLY OUTSIDE HFTD	BERRY CREEK, OROVILLE
BIG LAGOON 1101	Tier 1	NON HFTD	ORICK, TRINIDAD
BIG TREES 0402	43	TIER 2, TIER 3, PARTIALLY OUTSIDE	FELTON, SANTA CRUZ
BLUE LAKE 1101	Tier 1	NON HFTD	ARCATA, BLUE LAKE, KORBEL
BLUE LAKE 1102	Tier 1	NON HFTD	ARCATA, BAYSIDE, BLUE LAKE, MCKINLEYVILLE
BOLINAS 1101	252	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BOLINAS, FAIRFAX, MILL VALLEY, OLEMA, STINSON BEACH
BONNIE NOOK 1101	76	TIER 3	ALTA, COLFAX, DUTCH FLAT, GOLD RUN
BONNIE NOOK 1102	41	TIER 3	ALTA, DUTCH FLAT, GOLD RUN
BRIDGEVILLE 1101	240	TIER 2, TIER 3	BRIDGEVILLE, CARLOTTA
BRIDGEVILLE 1102	519	TIER 2, TIER 3	BLOCKSBURG, BRIDGEVILLE, CARLOTTA, MAD RIVER
BROWNS VALLEY 1101	513	TIER 2, PARTIALLY OUTSIDE HFTD	BROWNS VALLEY, LOOMIS, MARYSVILLE, SMARTSVILLE
BRUNSWICK 1102	5	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRASS VALLEY, NEVADA CITY
BRUNSWICK 1103	6	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY, NEVADA CITY

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
BRUNSWICK 1104	44	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRASS VALLEY, NEVADA CITY
BRUNSWICK 1105	8	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRASS VALLEY, NEVADA CITY
BRUNSWICK 1106	22	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CEDAR RIDGE, CHICAGO PARK, DIAMOND SPRINGS, GRASS VALLEY, NEVADA CITY
BRUNSWICK 1107	139	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRASS VALLEY
BRUNSWICK 1110	193	TIER 2, PARTIALLY OUTSIDE HFTD	GRASS VALLEY, NEVADA CITY, OROVILLE
BRYANT 0401	Tier 1	TIER 2, TIER 3	CONCORD, ORINDA
BUCKS CREEK 1101	507	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	OROVILLE, STORRIE
BUCKS CREEK 1102	591	TIER 2, TIER 3	BELDEN, OROVILLE, QUINCY, STORRIE, TWIN
BUCKS CREEK 1103	121	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BIGGS, QUINCY
BURNS 2101	83	TIER 3	BEN LOMOND, SANTA CRUZ
BUTTE 1105	697	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CHICO
CAL WATER 1102	636	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
CALAVERAS CEMENT 1101	453	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ANGELS CAMP, COPPEROPOLIS, GLENCOE, MOKELUMNE HILL, MOUNTAIN RANCH, RAIL ROAD FLAT, SAN ANDREAS, VALLEY SPRINGS
CALISTOGA 1101	16	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CALISTOGA, NAPA, RUTHERFORD, SANTA ROSA
CALISTOGA 1102	129	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CALISTOGA, SAINT HELENA

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
CALPELLA 1101*	498	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CALPELLA, POINT ARENA, POTTER VALLEY, REDWOOD VALLEY, UKIAH, WILLITS
CAMP EVERS 2103*	192	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	APTOS, SANTA CRUZ, SCOTTS VALLEY, SOQUEL
CAMP EVERS 2104*	157	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BIG SUR, FELTON, MOUNT HERMON, SANTA CRUZ, SCOTTS VALLEY
CAMP EVERS 2105*	51	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BEN LOMOND, BOULDER CREEK, FELTON, LOS GATOS, MOUNT HERMON, SCOTTS VALLEY
CAMP EVERS 2106*	29	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	FELTON, LOS GATOS, MOUNT HERMON, REDWOOD ESTATES, SANTA CRUZ, SCOTTS VALLEY, SOQUEL
CARLOTTA 1121	576	TIER 2, PARTIALLY OUTSIDE HFTD	CARLOTTA, FERNDAL, FORTUNA, HYDESVILLE
CASTRO VALLEY 1106*	134	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, HAYWARD
CASTRO VALLEY 1108*	118	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, HAYWARD, SAN LEANDRO
CASTRO VALLEY 1111	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, HAYWARD
CEDAR CREEK 1101	512	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BELLA VISTA, BIG BEND, BURNEY, HAT CREEK, MONTGOMERY CREEK, OAK RUN, REDDING, ROUND MOUNTAIN
CHALLENGE 1101	30	TIER 2, TIER 3	CHALLENGE, CLIPPER MILLS, FORBESTOWN, OROVILLE, STRAWBERRY VALLEY
CHALLENGE 1102	38	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BROWNSVILLE, CHALLENGE, DOBBINS, FORBESTOWN, OROVILLE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
CLARK ROAD 1101	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	OROVILLE
CLARK ROAD 1102	368	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CHICO, OROVILLE, PALERMO, PARADISE
CLARKSVILLE 2104	80	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL DORADO HILLS, RESCUE, SHINGLE SPRINGS
CLARKSVILLE 2109	301	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL DORADO HILLS, EL DORADO, OREGON HOUSE, RESCUE
CLARKSVILLE 2110	416	NON HFTD	EL DORADO HILLS
CLEAR LAKE 1101	281	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	FINLEY, KELSEYVILLE, LAKEPORT
CLEAR LAKE 1102	311	TIER 2, PARTIALLY OUTSIDE HFTD	FINLEY, KELSEYVILLE, LAKEPORT, MIDDLETOWN
CLOVERDALE 1102	268	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CLOVERDALE, CROCKETT, GEYSERVILLE, HEALDSBURG, HOPLAND
COLUMBIA HILL 1101	37	TIER 2, TIER 3	BROOKS, CAMPTONVILLE, GRASS VALLEY, NEVADA CITY, NORTH SAN JUAN, PENN VALLEY
CORNING 1101*	187	TIER 2, PARTIALLY OUTSIDE HFTD	CORNING, COTTONWOOD, FLOURNOY, PASKENTA, RED BLUFF
CORNING 1102*	457	TIER 2, PARTIALLY OUTSIDE HFTD	CORNING, FLOURNOY, PASKENTA, RED BLUFF
CORONA 1101	Tier 1	NON HFTD	PETALUMA
CORONA 1103	683	TIER 2, PARTIALLY OUTSIDE HFTD	PENNGROVE, PETALUMA
CORTINA 1101	355	TIER 2, PARTIALLY OUTSIDE HFTD	ARBUCKLE, WILLIAMS
COTTONWOOD 1101*	398	TIER 2, PARTIALLY OUTSIDE HFTD	COTTONWOOD, RED BLUFF

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
COTTONWOOD 1102*	562	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD, IGO, REDDING
COTTONWOOD 1103*	229	TIER 2, PARTIALLY OUTSIDE HFTD	COTTONWOOD, RED BLUFF
CURTIS 1701	577	TIER 2, PARTIALLY OUTSIDE HFTD	SONORA, STANDARD
CURTIS 1702	65	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COLUMBIA, PINECREST, SONORA, SOULSBYVILLE, TUOLUMNE, TWAIN HARTE
CURTIS 1703	366	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BIG OAK FLAT, COULTERVILLE, GROVELAND, JAMESTOWN, SONORA, TUOLUMNE, YOSEMITE NATIONAL PARK
CURTIS 1704	81	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COLUMBIA, OAKDALE, SONORA, STANDARD, TWAIN HARTE
CURTIS 1705	67	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GROVELAND, JAMESTOWN, RIVERBANK, SONORA, SOULSBYVILLE, TUOLUMNE, TWAIN HARTE
DAIRYVILLE 1101	Tier 1	NON HFTD	CORNING, LOS MOLINOS, RED BLUFF
DEL MAR 2109	255	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, LINCOLN, LOOMIS, ROCKLIN
DESCHUTES 1101	285	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MILLVILLE, OAK RUN, PALO CEDRO, REDDING, SHINGLETOWN, WHITMORE
DESCHUTES 1104	177	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, BELLA VISTA, MILLVILLE, PALO CEDRO, REDDING
DIAMOND SPRINGS 1103*	432	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL DORADO, PLACERVILLE
DIAMOND SPRINGS 1104*	474	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	DIAMOND SPRINGS, EL DORADO, PLACERVILLE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
DIAMOND SPRINGS 1105	186	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	DIAMOND SPRINGS, EL DORADO, PLACERVILLE, SHINGLE SPRINGS
DIAMOND SPRINGS 1106*	505	TIER 2, PARTIALLY OUTSIDE HFTD	DIAMOND SPRINGS, EL DORADO, PLACERVILLE
DIAMOND SPRINGS 1107*	99	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PLACERVILLE, SHINGLE SPRINGS
DOBBINS 1101	409	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BROWNS VALLEY, BROWNSVILLE, CAMPTONVILLE, DOBBINS, DOWNIEVILLE, GREENWOOD, MARYSVILLE, OREGON HOUSE, WHEATLAND
DRUM 1101	127	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ALTA, EMIGRANT GAP, MEADOW VISTA, NEVADA CITY
DUNBAR 1101	89	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GLEN ELLEN, KENWOOD, SANTA ROSA, SONOMA
DUNBAR 1102	115	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BOYES HOT SPRINGS, ELDRIDGE, GLEN ELLEN, SANTA ROSA, SONOMA
DUNBAR 1103	94	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GLEN ELLEN, SONOMA
EAST MARYSVILLE 1108	748	TIER 2, PARTIALLY OUTSIDE HFTD	BROWNS VALLEY, MARYSVILLE, PENN VALLEY, YUBA CITY
EDES 1112	516	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	OAKLAND
EEL RIVER 1102	348	TIER 2, PARTIALLY OUTSIDE HFTD	EUREKA, FERNDAL, E, FIELDS LANDING, FORTUNA, LOLETA, RIO DELL
EEL RIVER 1103	777	TIER 2, PARTIALLY OUTSIDE HFTD	FERNDAL, FORTUNA
EL CERRITO G 1105	260	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ALBANY, BERKELEY, EL CERRITO, ORINDA, RICHMOND, SAN PABLO

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
EL DORADO PH 2101	10	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CAMINO, ECHO LAKE, GEORGETOWN, GRIZZLY FLATS, KYBURZ, PLACERVILLE, POLLOCK PINES, SOMERSET, TWIN BRIDGES
EL DORADO PH 2102	26	TIER 3	CAMINO, POLLOCK PINES
ELECTRA 1101	153	TIER 2, PARTIALLY OUTSIDE HFTD	JACKSON, PINE GROVE
ELECTRA 1102	68	TIER 2, PARTIALLY OUTSIDE HFTD	FIDDLTOWN, JACKSON, MOKELUMNE HILL
ELK CREEK 1101*	269	TIER 2, PARTIALLY OUTSIDE HFTD	DURHAM, ELK CREEK, ORLAND, STONYFORD, WILLIAMS, WILLOWS
EUREKA A 1103	Tier 1	NON HFTD	EUREKA
EUREKA A 1106	Tier 1	NON HFTD	EUREKA, FORTUNA
EUREKA A 1107	Tier 1	NON HFTD	EUREKA
EUREKA E 1101	Tier 1	NON HFTD	EUREKA
EUREKA E 1104	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	EUREKA
EUREKA E 1105	Tier 1	NON HFTD	EUREKA
FAIRHAVEN 1103	Tier 1	NON HFTD	ARCATA, SAMOA
FELTON 0401	410	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BEN LOMOND, FELTON, SANTA CRUZ
FITCH MOUNTAIN 1113	85	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GEYSERVILLE, GUERNEVILLE, HEALDSBURG
FLINT 1101	251	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
FLINT 1102	652	TIER 2	AUBURN
FORESTHILL 1101	18	TIER 2, TIER 3	AUBURN, FOLSOM, FORESTHILL, OAKDALE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
FORESTHILL 1102	64	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	AUBURN, FORESTHILL
FORT SEWARD 1121	195	TIER 2, PARTIALLY OUTSIDE HFTD	ALDERPOINT, GARBERVILLE, ZENIA
FORT SEWARD 1122	598	TIER 2, PARTIALLY OUTSIDE HFTD	ALDERPOINT, BLOCKSBURG, GARBERVILLE, ZENIA
FREMONT 1104*	338	TIER 2, PARTIALLY OUTSIDE HFTD	FREMONT
FRENCH GULCH 1101	557	TIER 2	FRENCH GULCH
FRENCH GULCH 1102	585	TIER 2, PARTIALLY OUTSIDE HFTD	FRENCH GULCH, REDDING, WHISKEYTOWN
FROGTOWN 1701	344	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ANGELS CAMP, ARNOLD, AVERY, DOUGLAS FLAT, MOUNTAIN RANCH, MURPHYS, VALLECITO
FROGTOWN 1702	258	TIER 2, PARTIALLY OUTSIDE HFTD	ALTAVILLE, ANGELS CAMP, ARNOLD, CLEMENTS, COPPEROPOLIS, DOUGLAS FLAT, FARMINGTON, GUSTINE, MURPHYS, SAN ANDREAS, VALLECITO, VALLEY SPRINGS
FRUITLAND 1141	358	TIER 2, PARTIALLY OUTSIDE HFTD	MYERS FLAT, PHILLIPSVILLE, REDCREST, REDWAY, WEOTT
FRUITLAND 1142	194	TIER 2, PARTIALLY OUTSIDE HFTD	BLOCKSBURG, MIRANDA, MYERS FLAT, PHILLIPSVILLE, REDCREST, WEOTT
FULTON 1102*	307	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HEALDSBURG, SANTA ROSA, WINDSOR
FULTON 1107*	72	TIER 3, PARTIALLY OUTSIDE HFTD	FULTON, SANTA ROSA, WINDSOR

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
GARBERVILLE 1101	222	TIER 2, PARTIALLY OUTSIDE HFTD	ALDERPOINT, GARBERVILLE, LAYTONVILLE, LEGGETT, PIERCY, REDWAY, WESTPORT, WHITETHORN, ZENIA
GARBERVILLE 1102	160	TIER 2, PARTIALLY OUTSIDE HFTD	GARBERVILLE, HONEYDEW, LOOMIS, PETROLIA, PHILLIPSVILLE, REDWAY, WHITETHORN
GARBERVILLE 1103	650	TIER 2, PARTIALLY OUTSIDE HFTD	GARBERVILLE
GERBER 1101	Tier 1	NON HFTD	CORNING, GERBER, RED BLUFF, TEHAMA
GERBER 1102	Tier 1	NON HFTD	CORNING, GERBER, PROBERTA, RED BLUFF, REDDING
GEYSERVILLE 1101	356	TIER 2, PARTIALLY OUTSIDE HFTD	ANNAPOLIS, CLOVERDALE, GEYSERVILLE, HEALDSBURG
GEYSERVILLE 1102	320	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CLOVERDALE, GEYSERVILLE, HEALDSBURG
GIRVAN 1101	221	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD, IGO, REDDING
GIRVAN 1102	189	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	REDDING, SHASTA
GLENN 1101*	789	TIER 2, PARTIALLY OUTSIDE HFTD	ORLAND
GRASS VALLEY 1101	109	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRASS VALLEY
GRASS VALLEY 1102	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	GRASS VALLEY
GRASS VALLEY 1103	422	TIER 2, PARTIALLY OUTSIDE HFTD	GRASS VALLEY, PENN VALLEY, ROUGH AND READY
GREEN VALLEY 2101*	297	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GILROY, WATSONVILLE
HALF MOON BAY 1101	54	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL GRANADA, HALF MOON BAY, MOSS BEACH, REDWOOD CITY, SAN MATEO

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
HALF MOON BAY 1102	454	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL GRANADA, HALF MOON BAY, MONTARA, MOSS BEACH, PACIFICA
HALF MOON BAY 1103	212	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	DAVENPORT, EL GRANADA, HALF MOON BAY, LA HONDA, LOMA MAR, PESCADERO, REDWOOD CITY, SAN GREGORIO
HALSEY 1101	310	TIER 2, PARTIALLY OUTSIDE HFTD	APPLEGATE, AUBURN, COLFAX, DUTCH FLAT, MEADOW VISTA
HALSEY 1102	437	TIER 2, PARTIALLY OUTSIDE HFTD	ALTA, APPLEGATE, AUBURN, COLFAX, MEADOW VISTA, SODA SPRINGS, STOCKTON
HARRIS 1108	664	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, CUTTEN, EUREKA, MCKINLEYVILLE
HARRIS 1109	421	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, EUREKA, KNEELAND
HARTLEY 1101	302	TIER 2, PARTIALLY OUTSIDE HFTD	LAKEPORT, NICE, UPPER LAKE
HARTLEY 1102	361	TIER 2, PARTIALLY OUTSIDE HFTD	COBB, LAKEPORT
HICKS 2101	233	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SAN JOSE
HIGGINS 1103	294	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY
HIGGINS 1104	304	TIER 2, PARTIALLY OUTSIDE HFTD	GRASS VALLEY
HIGGINS 1107	529	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY, NEVADA CITY
HIGGINS 1109	481	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY, PENN VALLEY
HIGGINS 1110	418	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, COLFAX, GRASS VALLEY, MEADOW VISTA
HIGHLANDS 1102	216	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CLEARLAKE OAKS, CLEARLAKE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
HIGHLANDS 1103	96	TIER 2, PARTIALLY OUTSIDE HFTD	CLEARLAKE, COBB, HIDDEN VALLEY LAKE, LOWER LAKE, MIDDLETOWN
HIGHLANDS 1104	434	TIER 2, PARTIALLY OUTSIDE HFTD	CLEARLAKE OAKS, CLEARLAKE, LOWER LAKE
HIGHWAY 1102	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	NAPA
HOOPA 1101	180	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HOOPA, HYDESVILLE, MCKINLEYVILLE, ORLEANS, SAMOA, SOMES BAR, WILLOW CREEK
HOPLAND 1101	383	TIER 2, PARTIALLY OUTSIDE HFTD	HOPLAND, LAKEPORT, UKIAH
HORSESHOE 1101	372	TIER 2, PARTIALLY OUTSIDE HFTD	GRANITE BAY, LOOMIS, ROSEVILLE
HORSESHOE 1104	283	TIER 2, PARTIALLY OUTSIDE HFTD	GRANITE BAY, LOOMIS, ROSEVILLE
HUMBOLDT BAY 1101	Tier 1	TIER 2, TIER 3	EUREKA, FIELDS LANDING, LOLETA
HUMBOLDT BAY 1102	659	TIER 2, TIER 3	EUREKA
JAMESON 1101	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD
JAMESON 1102	314	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, SUISUN CITY, TRAVIS AFB
JAMESON 1103	556	TIER 2, PARTIALLY OUTSIDE HFTD	AMERICAN CANYON, FAIRFIELD, NAPA, SUISUN CITY, VALLEJO
JAMESON 1105	288	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, SUISUN CITY, TRAVIS AFB
JANES CREEK 1101	Tier 1	NON HFTD	ARCATA, BAYSIDE, BLUE LAKE, MCKINLEYVILLE, WEST SACRAMENTO
JANES CREEK 1102	Tier 1	NON HFTD	ARCATA
JANES CREEK 1103	Tier 1	NON HFTD	ARCATA, MCKINLEYVILLE, TRINIDAD
JANES CREEK 1104	Tier 1	NON HFTD	ARCATA

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
JARVIS 1111	495	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, FREMONT, UNION CITY
JESSUP 1101	249	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD, IGO, REDDING
JESSUP 1102	203	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON
JESSUP 1103	428	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, REDDING, SHASTA
KANAKA 1101	47	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BROWNSVILLE, FEATHER FALLS, FORBESTOWN, GOODYEARS BAR, OROVILLE
KERN OIL 1104	Tier 1	NON HFTD	BAKERSFIELD
KERN OIL 1106	700	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
KESWICK 1101	364	TIER 2, TIER 3	ANDERSON, REDDING, SHASTA, SHINGLETOWN, WHISKEYTOWN
KONOCI 1102	69	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BOYES HOT SPRINGS, COBB, KELSEYVILLE, LOWER LAKE, MIDDLETOWN
KONOCI 1108	554	TIER 2, PARTIALLY OUTSIDE HFTD	KELSEYVILLE, LAKEPORT, LOWER LAKE
LAKEVIEW 1106	Tier 1	NON HFTD	BAKERSFIELD, FRAZIER PARK, MARICOPA, TAFT
LAKEVILLE 1102	232	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PENNGROVE, PETALUMA
LAKEWOOD 2107	566	TIER 2, PARTIALLY OUTSIDE HFTD	LAFAYETTE, PLEASANT HILL, WALNUT CREEK
LAMONT 1102	775	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
LAS AROMAS 0401*	609	TIER 2, PARTIALLY OUTSIDE HFTD	ORINDA
LAS POSITAS 2108*	553	TIER 2, PARTIALLY OUTSIDE HFTD	LIVERMORE
LINCOLN 1101	645	TIER 2, PARTIALLY OUTSIDE HFTD	LINCOLN, LOOMIS, NEWCASTLE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
LINCOLN 1104	261	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, LINCOLN, SHERIDAN, WHEATLAND
LOGAN CREEK 2102	794	TIER 2, PARTIALLY OUTSIDE HFTD	ARTOIS, ELK CREEK, GLENN, ORLAND, PATTERSON, WILLOWS
LOS GATOS 1106*	130	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LOS GATOS, MORGAN HILL, REDWOOD ESTATES
LOS GATOS 1107*	12	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LOS GATOS, REDWOOD ESTATES, SARATOGA, SOQUEL, WATSONVILLE
LOS MOLINOS 1101	701	TIER 2, PARTIALLY OUTSIDE HFTD	LOS MOLINOS, RED BLUFF
LOS MOLINOS 1102	Tier 1	NON HFTD	CORNING, KLAMATH RIVER, LOS MOLINOS, TEHAMA, VINA
LOW GAP 1101	171	TIER 2	BRIDGEVILLE, LOLETA, MAD RIVER, ZENIA
LUCERNE 1103	508	TIER 2, PARTIALLY OUTSIDE HFTD	LAKEPORT, LUCERNE, NICE, PORTOLA VALLEY, UPPER LAKE
LUCERNE 1106	455	TIER 2, PARTIALLY OUTSIDE HFTD	CLEARLAKE OAKS, GLENHAVEN, KELSEYVILLE, LUCERNE, NICE
MADISON 1105	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	CAPAY, DAVIS, ESPARTO, MADISON, WEST SACRAMENTO, WINTERS, WOODLAND, ZAMORA
MADISON 2101	318	TIER 2, PARTIALLY OUTSIDE HFTD	BROOKS, CAPAY, CONCORD, DAVIS, DUNNIGAN, ESPARTO, FORESTHILL, GUINDA, MADISON, RUMSEY, WINTERS, WOODLAND
MAPLE CREEK 1101	530	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, EUREKA, KNEELAND, KORBEL
MARTELL 1101	306	TIER 2, PARTIALLY OUTSIDE HFTD	AMADOR CITY, FIDDLETOWN, JACKSON, MARTELL, SUTTER CREEK, VOLCANO

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
MARTELL 1102	382	TIER 2, PARTIALLY OUTSIDE HFTD	JACKSON, MARTELL, SUTTER CREEK
MAXWELL 1105*	786	TIER 2, PARTIALLY OUTSIDE HFTD	MAXWELL, STONYFORD
MC KEE 1103*	717	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
MC KEE 1107	637	TIER 2, PARTIALLY OUTSIDE HFTD	MOUNT HAMILTON, SAN JOSE
MC KEE 1108*	604	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
MC KEE 1111*	446	TIER 2, PARTIALLY OUTSIDE HFTD	COYOTE, MOUNT HAMILTON, SAN JOSE
MENLO 1102*	174	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LA HONDA, PALO ALTO, PORTOLA VALLEY, REDWOOD CITY
MENLO 1103*	178	TIER 2, PARTIALLY OUTSIDE HFTD	CUPERTINO, LA HONDA, LOMA MAR, LOS ALTOS, LOS GATOS, PALO ALTO, PORTOLA VALLEY, REDWOOD CITY, STANFORD
MERCED FALLS 1102*	345	TIER 2, PARTIALLY OUTSIDE HFTD	COULTERVILLE, LA GRANGE, MARIPOSA, MOCCASIN, SNELLING
MIDDLETOWN 1101	19	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CALISTOGA, COBB, COVELO, FORT BRAGG, KELSEYVILLE, MIDDLETOWN
MIDDLETOWN 1102	173	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HIDDEN VALLEY LAKE, MIDDLETOWN, POPE VALLEY
MIDDLETOWN 1103	426	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HIDDEN VALLEY LAKE, MIDDLETOWN
MILPITAS 1105*	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	MILPITAS
MILPITAS 1108*	271	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
MILPITAS 1109*	462	TIER 2, PARTIALLY OUTSIDE HFTD	FREMONT, MILPITAS, SAN JOSE, SUNOL

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
MIWUK 1701	1	TIER 2, TIER 3	HOOPA, LONG BARN, MI WUK VILLAGE, PINECREST, SONORA, TUOLUMNE, TWAIN HARTE
MIWUK 1702	15	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GROVELAND, SONORA, SOULSBYVILLE, TWAIN HARTE
MONROE 2103	185	TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
MONROE 2107	449	TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
MONTICELLO 1101	262	TIER 2, PARTIALLY OUTSIDE HFTD	NAPA
MORAGA 1101	119	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BERKELEY, CONCORD, LAFAYETTE, ORINDA, PLEASANT HILL
MORAGA 1102	379	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ORINDA, PLEASANT HILL, SAN JUAN BAUTISTA
MORAGA 1103	608	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MORAGA, NAPA, ORINDA
MORAGA 1104	473	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LAFAYETTE, MORAGA, ORINDA
MORAGA 1105	93	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CANYON, MORAGA
MORGAN HILL 2104	525	TIER 2, PARTIALLY OUTSIDE HFTD	GILROY, MORGAN HILL, SAN JOSE
MORGAN HILL 2105	371	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MORGAN HILL
MORGAN HILL 2111	100	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COYOTE, MORGAN HILL, SAN JOSE
MOUNTAIN QUARRIES 2101	60	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COOL, GARDEN VALLEY, GEORGETOWN, GREENWOOD, PILOT HILL
NAPA 1102	Tier 1	TIER 2	BODEGA BAY, NAPA
NAPA 1112	254	TIER 2, PARTIALLY OUTSIDE HFTD	NAPA, SUISUN CITY

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
NARROWS 2101	444	TIER 2	BROWNS VALLEY, MARYSVILLE, OREGON HOUSE, SMARTSVILLE
NARROWS 2102	370	TIER 2, PARTIALLY OUTSIDE HFTD	BROWNS VALLEY, GRASS VALLEY, MARYSVILLE, NEVADA CITY, PENN VALLEY, ROUGH AND READY, SMARTSVILLE
NARROWS 2105	278	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY, NEVADA CITY, PENN VALLEY, ROUGH AND READY, SMARTSVILLE
NEWBURG 1131	452	TIER 2, PARTIALLY OUTSIDE HFTD	FORTUNA, HYDESVILLE
NEWBURG 1132	404	TIER 2, PARTIALLY OUTSIDE HFTD	FORTUNA
NEWBURG 1133	618	TIER 2, PARTIALLY OUTSIDE HFTD	FORTUNA, SCOTIA
NOTRE DAME 1104	405	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CHICO, FOREST RANCH
OAKLAND K 2 1102	Tier 1	TIER 3	BERKELEY, EMERYVILLE, MORAGA, OAKLAND, ORINDA
OAKLAND X 1106	82	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	OAKLAND
OLETA 1101	259	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	AMADOR CITY, DRYTOWN, IONE, JACKSON, PINE GROVE, PIONEER, PLYMOUTH, SHINGLE SPRINGS, SUTTER CREEK
OLETA 1102	552	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	FIDDLETOWN, MOUNT AUKUM, ORINDA, PLYMOUTH, RIVER PINES, SOMERSET, THORNTON, WEST POINT
OREGON TRAIL 1102	313	TIER 2, PARTIALLY OUTSIDE HFTD	REDDING, SHASTA LAKE
OREGON TRAIL 1103	406	TIER 2, PARTIALLY OUTSIDE HFTD	BELLA VISTA, REDDING, SHINGLETOWN

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
OREGON TRAIL 1104	478	TIER 2, PARTIALLY OUTSIDE HFTD	BELLA VISTA, PALO CEDRO, REDDING
ORICK 1101	Tier 1	NON HFTD	ORICK
ORICK 1102	Tier 1	NON HFTD	EUREKA, ORICK, TRINIDAD
ORINDA 0401	477	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ORINDA, WALNUT CREEK
ORINDA 0402	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ORINDA
ORO FINO 1101	2	TIER 3	MAGALIA
ORO FINO 1102	17	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CHICO, FOREST RANCH, MAGALIA, PARADISE, STIRLING CITY
OROVILLE 1104	779	NON HFTD	OROVILLE
PANORAMA 1101*	287	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD
PANORAMA 1102*	647	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD, MANTON, MILLVILLE, PALO CEDRO, PAYNES CREEK, RED BLUFF, REDDING
PARADISE 1103	147	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PARADISE
PARADISE 1104	91	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PARADISE
PARADISE 1105	63	TIER 3, PARTIALLY OUTSIDE HFTD	MAGALIA, PARADISE
PARADISE 1106	11	TIER 3, PARTIALLY OUTSIDE HFTD	CHICO, PARADISE
PAUL SWEET 2102*	234	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA CRUZ
PAUL SWEET 2105	459	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA CRUZ
PAUL SWEET 2106	389	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CAPITOLA, SANTA CRUZ, SOQUEL

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
PEABODY 2106	688	TIER 2, PARTIALLY OUTSIDE HFTD	ANTIOCH, DIXON, FAIRFIELD, VACAVILLE
PEABODY 2108	324	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, SACRAMENTO, TRAVIS AFB
PEABODY 2113	273	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, SUISUN CITY, VACAVILLE
PENNGROVE 1101	167	TIER 2, PARTIALLY OUTSIDE HFTD	COTATI, PENNGROVE, PETALUMA, ROHNERT PARK, SANTA ROSA, WATSONVILLE
PENRYN 1103	183	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, LOOMIS, NEWCASTLE, NORTH HIGHLANDS, PENRYN, PILOT HILL
PENRYN 1105	296	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, LINCOLN, LOOMIS, NEWCASTLE, PENRYN
PENRYN 1106	439	TIER 2, PARTIALLY OUTSIDE HFTD	LOOMIS, PENRYN, ROCKLIN
PENRYN 1107	342	TIER 2, PARTIALLY OUTSIDE HFTD	LOOMIS, PENRYN
PEORIA FLAT 1701	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	BIG OAK FLAT, CERES, CHINESE CAMP, FRENCH CAMP, GROVELAND, JAMESTOWN, LONG BARN, MOCCASIN
PEORIA FLAT 1704	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	ANGELS CAMP, COPPEROPOLIS, JAMESTOWN, KEYES, MURPHYS, OAKDALE, WOODBIDGE
PEORIA FLAT 1705	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	CHINESE CAMP, JAMESTOWN, SONORA
PETALUMA C 1108	161	TIER 2, PARTIALLY OUTSIDE HFTD	PETALUMA
PIERCY 2110	583	TIER 2, PARTIALLY OUTSIDE HFTD	MORGAN HILL, SAN JOSE
PIKE CITY 1101	34	TIER 3	ALLEGHANY, CAMPTONVILLE, GRASS VALLEY, MEADOW VISTA, NEVADA CITY, NORTH SAN JUAN
PIKE CITY 1102	146	TIER 3	CAMPTONVILLE, DOWNIEVILLE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
PINE GROVE 1101	170	TIER 2	JACKSON, PINE GROVE, PIONEER, SUTTER CREEK
PINE GROVE 1102	4	TIER 2, TIER 3	FIDDLETOWN, HOOD, JACKSON, PINE GROVE, PIONEER, PLYMOUTH, SUTTER CREEK, VOLCANO
PINECREST 0401	293	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PINECREST
PIT NO 5 1101	769	TIER 2	BIG BEND, MONTGOMERY CREEK, REDDING
PIT NO 7 ⁽¹⁾	Tier 1	TIER 2	MONTGOMERY CREEK, ROUND MOUNTAIN
PLACER 1101	763	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, MEADOW VISTA
PLACER 1102	393	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
PLACER 1103	610	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN
PLACER 1104	762	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, GRASS VALLEY
PLACERVILLE 1109	694	TIER 2, PARTIALLY OUTSIDE HFTD	CAMINO, NORTH HIGHLANDS, PLACERVILLE
PLACERVILLE 1110	468	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PLACERVILLE
PLACERVILLE 1111	538	TIER 2, PARTIALLY OUTSIDE HFTD	PLACERVILLE
PLACERVILLE 1112	520	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	DIAMOND SPRINGS, PLACERVILLE
PLACERVILLE 2106	13	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COLOMA, DIAMOND SPRINGS, GARDEN VALLEY, GEORGETOWN, LOOMIS, PLACERVILLE, SACRAMENTO

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
POINT MORETTI 1101	84	TIER 2, PARTIALLY OUTSIDE HFTD	BOULDER CREEK, DAVENPORT, PESCADERO, SANTA CRUZ, SCOTTS VALLEY
POSO MOUNTAIN 2101	528	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
POSO MOUNTAIN 2103	537	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
POSO MOUNTAIN 2104	686	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BAKERSFIELD
POTTER VALLEY P H 1104	743	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	POTTER VALLEY, UKIAH
POTTER VALLEY P H 1105	531	TIER 2, PARTIALLY OUTSIDE HFTD	POTTER VALLEY, REDWOOD VALLEY, SANTA ROSA, UKIAH, UPPER LAKE
PUEBLO 1104	246	TIER 2, PARTIALLY OUTSIDE HFTD	NAPA
PUEBLO 1105	394	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	NAPA, VALLEJO
PUEBLO 2102*	25	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	NAPA, OAKVILLE, YOUNTVILLE
PUEBLO 2103	59	TIER 2, PARTIALLY OUTSIDE HFTD	GLEN ELLEN, NAPA
PUTAH CREEK 1102	263	TIER 2, PARTIALLY OUTSIDE HFTD	DAVIS, VACAVILLE, WINTERS, WOODLAND
PUTAH CREEK 1103	230	TIER 2, PARTIALLY OUTSIDE HFTD	DAVIS, VACAVILLE, WINTERS, WOODLAND
PUTAH CREEK 1105	309	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	DAVIS, DIXON, DRYTOWN, ESPARTO, MADISON, WEST SACRAMENTO, WINTERS, WOODLAND, ZAMORA
RACETRACK 1703	487	TIER 2	COLUMBIA, GROVELAND, JAMESTOWN, SONORA
RACETRACK 1704	169	TIER 2, PARTIALLY OUTSIDE HFTD	JAMESTOWN, SONORA

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
RAWSON 1103	730	TIER 2, PARTIALLY OUTSIDE HFTD	AMERICAN CANYON, ARCATA, RED BLUFF, SAN PABLO, SANTA MARIA
RED BLUFF 1101	322	NON HFTD	COTTONWOOD, RED BLUFF
RED BLUFF 1102	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	RED BLUFF
RED BLUFF 1103	501	TIER 2, PARTIALLY OUTSIDE HFTD	RED BLUFF
RED BLUFF 1104	279	TIER 2, PARTIALLY OUTSIDE HFTD	ANDERSON, COTTONWOOD, RED BLUFF
RED BLUFF 1105	376	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	RED BLUFF
REDBUD 1101	123	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CLEARLAKE OAKS, CLEARLAKE, GLENHAVEN, LAKEPORT
REDBUD 1102	208	TIER 2	CLEARLAKE OAKS, CLEARLAKE PARK, CLEARLAKE, CONCORD, LAKEPORT
RIDGE 0401	565	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BERKELEY
RINCON 1101	92	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
RINCON 1102	299	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
RINCON 1103	36	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
RINCON 1104	488	TIER 2, PARTIALLY OUTSIDE HFTD	SANTA ROSA
RIO DEL MAR 0401	689	NON HFTD	APTOS
RIO DELL 1101	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	FORTUNA, RIO DELL
RIO DELL 1102	431	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HONEYDEW, MYERS FLAT, REDCREST, RIO DELL, SCOTIA
ROB ROY 2104	277	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	APTOS, FREEDOM, WATSONVILLE

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
ROB ROY 2105	106	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	APTOS, SANTA CRUZ, SOQUEL, WATSONVILLE
ROSSMOOR 1106	326	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LAFAYETTE
ROSSMOOR 1108	87	TIER 2, PARTIALLY OUTSIDE HFTD	LAFAYETTE, MORAGA
SALT SPRINGS 2101	632	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ALTAVILLE, ANGELS CAMP, ARNOLD, HATHAWAY PINES, JACKSON, PIONEER
SALT SPRINGS 2102	7	TIER 2, PARTIALLY OUTSIDE HFTD	ANGELS CAMP, ARNOLD, PITTSBURG
SAN BERNARD 1101	708	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ARVIN, BAKERSFIELD, DELANO
SAN LEANDRO 1109	Tier 1	TIER 3, PARTIALLY OUTSIDE HFTD	OAKLAND, SAN LEANDRO
SAN RAMON 2108	133	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, LIVERMORE, MORAGA, SAN RAMON
SANTA ROSA A 1104	144	TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
SANTA ROSA A 1107	417	TIER 2, PARTIALLY OUTSIDE HFTD	SANTA ROSA
SANTA ROSA A 1110	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
SANTA ROSA A 1111	182	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SANTA ROSA
SARATOGA 1107	113	TIER 2, PARTIALLY OUTSIDE HFTD	LOS GATOS, SARATOGA
SAUSALITO 1102	266	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MILL VALLEY, SAUSALITO
SHADY GLEN 1101	197	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	AUBURN, COLFAX, DUTCH FLAT, GRASS VALLEY
SHADY GLEN 1102	126	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CHICAGO PARK, COLFAX, COLOMA, GOLD RUN, GRASS VALLEY
SHINGLE SPRINGS 2105	101	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	RESCUE, SHINGLE SPRINGS

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
SHINGLE SPRINGS 2109	56	TIER 2, TIER 3	COLOMA, EL DORADO HILLS, GARDEN VALLEY, LOTUS, PLACERVILLE, RESCUE, SHINGLE SPRINGS
SILVERADO 2102	102	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	NAPA, OAKVILLE, RUTHERFORD, SAINT HELENA, YOUNTVILLE
SILVERADO 2103	78	TIER 2, TIER 3	KENWOOD, NAPA, OAKVILLE, RUTHERFORD, SAINT HELENA
SILVERADO 2104	23	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ANGWIN, CALISTOGA, DEER PARK, NAPA, OAKVILLE, POPE VALLEY, SAINT HELENA
SILVERADO 2105	53	TIER 2, PARTIALLY OUTSIDE HFTD	CALISTOGA, NAPA, SAINT HELENA
SMARTVILLE 1101	573	TIER 2, PARTIALLY OUTSIDE HFTD	MARYSVILLE, SMARTSVILLE
SOBRANTE 1101	561	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CONCORD, DANVILLE, LAFAYETTE, ORINDA, PLEASANT HILL, WALNUT CREEK
SOBRANTE 1102	460	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LAFAYETTE, ORINDA
SOBRANTE 1103	470	TIER 3, PARTIALLY OUTSIDE HFTD	ORINDA
SONOMA 1102	402	TIER 3, PARTIALLY OUTSIDE HFTD	BOYES HOT SPRINGS, SONOMA
SONOMA 1103	272	TIER 2, PARTIALLY OUTSIDE HFTD	SONOMA
SONOMA 1104	292	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EL VERANO, PETALUMA, SONOMA
SONOMA 1105	380	TIER 3, PARTIALLY OUTSIDE HFTD	CORTE MADERA, NAPA, SONOMA
SONOMA 1106	155	TIER 2, PARTIALLY OUTSIDE HFTD	PETALUMA, SONOMA
SONOMA 1107	312	NON HFTD	PETALUMA, SONOMA

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
SOQUEL 0402	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CAPITOLA, SOQUEL
SPAULDING 1101	795	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ALTA, AUBURN, EMIGRANT GAP, NEVADA CITY, NORDEN, SODA SPRINGS
SPRING GAP 1702	71	TIER 2, TIER 3	LONG BARN, MI WUK VILLAGE, MODESTO, PINECREST, SAMOA, STRAWBERRY
SPRUCE 0401	522	TIER 2, PARTIALLY OUTSIDE HFTD	ALBANY, BERKELEY
SPRUCE 0402	581	TIER 2, TIER 3	BERKELEY
STANISLAUS 1701	70	TIER 2, TIER 3	ARNOLD, AVERY, DOUGLAS FLAT, HATHAWAY PINES, MURPHYS, VALLECITO
STANISLAUS 1702	3	TIER 2, PARTIALLY OUTSIDE HFTD	ARNOLD, AVERY, COLUMBIA, HATHAWAY PINES, MURPHYS, SONORA
STELLING 1109	702	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	CUPERTINO
STELLING 1110	57	NON HFTD	CUPERTINO, LOS ALTOS, LOS GATOS, SARATOGA, SUNNYVALE
STELLING 1111	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	CUPERTINO
STILLWATER 1101	464	TIER 2, PARTIALLY OUTSIDE HFTD	LAKEHEAD, REDDING, SHASTA LAKE
STILLWATER 1102	504	TIER 2, PARTIALLY OUTSIDE HFTD	BELLA VISTA, COTTONWOOD, REDDING
SUMMIT 1101	590	TIER 2	NORDEN, ORINDA, SODA SPRINGS, WEIMAR
SUMMIT 1102	760	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	NORDEN, SODA SPRINGS, TRUCKEE
SUNOL 1101	377	TIER 2, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, DUBLIN, FREMONT, LIVERMORE, PLEASANTON, SUNOL

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
SWIFT 2102	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
SWIFT 2107	586	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
SWIFT 2109*	663	TIER 2, PARTIALLY OUTSIDE HFTD	SAN JOSE
SWIFT 2110	423	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	COYOTE, LIVERMORE, MOUNT HAMILTON, PATTERSON, SAN JOSE
SYCAMORE CREEK 1111	42	TIER 2, PARTIALLY OUTSIDE HFTD	CHICO
TAMARACK 1101	414	NON HFTD	ELK GROVE, NORDEN, SODA SPRINGS
TAMARACK 1102	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	EMIGRANT GAP, NORDEN, SODA SPRINGS
TAR FLAT 0401	237	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	SONORA
TAR FLAT 0402	547	TIER 3, PARTIALLY OUTSIDE HFTD	SONORA
TASSAJARA 2113	403	TIER 2, PARTIALLY OUTSIDE HFTD	CASTRO VALLEY, DANVILLE, SAN RAMON
TEJON 1102	559	TIER 2, PARTIALLY OUTSIDE HFTD	BAKERSFIELD, LEBEC
TEJON 1103	746	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	ARVIN, BAKERSFIELD, LEBEC
TIGER CREEK 201/	Tier 1	NON HFTD	JACKSON, PIONEER
TRINIDAD 1101	Tier 1	NON HFTD	ARCATA, EUREKA, MCKINLEYVILLE, TRINIDAD
TRINIDAD 1102	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	ARCATA, EUREKA, ORICK, TRINIDAD
TULUCAY 1101	643	NON HFTD	AMERICAN CANYON, NAPA, VALLEJO
TYLER 1103	Tier 1	NON HFTD	RED BLUFF
TYLER 1104	Tier 1	TIER 2, PARTIALLY OUTSIDE HFTD	RED BLUFF

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
TYLER 1105	511	TIER 2, PARTIALLY OUTSIDE HFTD	PASKENTA, RED BLUFF
UKIAH 1114	491	TIER 2, PARTIALLY OUTSIDE HFTD	BOONVILLE, CALPELLA, HOPLAND, LAKEPORT, REDWOOD VALLEY, TALMAGE, UKIAH, WILLITS
UKIAH 1115	593	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	UKIAH
UPPER LAKE 1101	329	TIER 2, PARTIALLY OUTSIDE HFTD	LAKEPORT, UPPER LAKE, WITTER SPRINGS
VACA DIXON 1101	217	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, VACAVILLE
VACA DIXON 1105	215	TIER 2, PARTIALLY OUTSIDE HFTD	VACAVILLE
VACAVILLE 1104	536	TIER 2, PARTIALLY OUTSIDE HFTD	FAIRFIELD, VACAVILLE
VACAVILLE 1108	253	TIER 2, PARTIALLY OUTSIDE HFTD	VACAVILLE
VACAVILLE 1109	319	TIER 2, PARTIALLY OUTSIDE HFTD	VACAVILLE
VACAVILLE 1111	219	TIER 2, PARTIALLY OUTSIDE HFTD	VACAVILLE
VACAVILLE 1112	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	VACAVILLE
VALLEY VIEW 1106	339	NON HFTD	EL SOBRANTE, PINOLE, RICHMOND, RODEO
VINA 1101	Tier 1	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	LOS MOLINOS, VINA
VOLTA 1101	533	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	MANTON, MILL CREEK, MINERAL, PAYNES CREEK, RED BLUFF, SHINGLETOWN
VOLTA 1102	55	TIER 2	MILLVILLE, MINERAL, REDDING, SHINGLETOWN
WEIMAR 1101	506	TIER 2	APPLEGATE, COLFAX, WEIMAR

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
WEIMAR 1102	582	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	APPEGATE, COLFAX, MEADOW VISTA, WEIMAR
WEST POINT 1101	20	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PIONEER, PLYMOUTH, VOLCANO, WEST POINT
WEST POINT 1102	58	TIER 2, PARTIALLY OUTSIDE HFTD	GLENCOE, LINCOLN, MOKELUMNE HILL, MOUNTAIN RANCH, PIONEER, RAIL ROAD FLAT, RIVER PINES, SACRAMENTO, VALLEY SPRINGS, WEST POINT, WILSEYVILLE
WESTLEY 1103	788	TIER 2, PARTIALLY OUTSIDE HFTD	PATTERSON
WHEATLAND 1105	327	NON HFTD	LINCOLN, MARYSVILLE, SHERIDAN, WHEATLAND
WHEELER RIDGE 1101	Tier 1	TIER 2, TIER 3	ARVIN, BAKERSFIELD, LEBEC, MARICOPA, TAFT, TEHACHAPI
WHITMORE 1101	124	TIER 2	MILLVILLE, OAK RUN, SHINGLETOWN, TEHAMA, WHITMORE
WILDWOOD 1101	360	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	PLATINA
WILLOW CREEK 1101	138	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BLUE LAKE, EUREKA, HOOPA, SALYER, WEOTT, WILLOW CREEK
WILLOW CREEK 1102	151	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	HOOPA, WILLOW CREEK
WILLOW CREEK 1103	228	TIER 2, PARTIALLY OUTSIDE HFTD	BIG BAR, BURNT RANCH, CASSEL, EUREKA, FIELDS LANDING, HOOPA, KORBEL, RIO DELL, SALYER, WILLOW CREEK
WISE 1101	624	TIER 2, PARTIALLY OUTSIDE HFTD	AUBURN, LOOMIS, NEWCASTLE, PENRYN, SANTA CRUZ
WISE 1102	179	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	AUBURN, LINCOLN, NEWCASTLE
WOODSIDE 1101	35	TIER 2, PARTIALLY OUTSIDE HFTD	LA HONDA, MENLO PARK, PORTOLA VALLEY, REDWOOD CITY

**Table 1-1. Distribution
(Continued)**

Circuit	Distribution Hardening Priority Level	HFTD Tier(s)	Key Communities
WYANDOTTE 1102	657	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	OROVILLE
WYANDOTTE 1103	9	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BERRY CREEK, CHICO, OROVILLE
WYANDOTTE 1105	667	TIER 2, PARTIALLY OUTSIDE HFTD	OROVILLE
WYANDOTTE 1106	328	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	BELDEN, BIGGS, GRIDLEY, OROVILLE, PALERMO, ROCKLIN
WYANDOTTE 1107	476	TIER 2, PARTIALLY OUTSIDE HFTD	BANGOR, FORBESTOWN, OROVILLE
WYANDOTTE 1109	330	TIER 2, PARTIALLY OUTSIDE HFTD	OROVILLE, PALERMO
WYANDOTTE 1110	595	TIER 2, TIER 3, PARTIALLY OUTSIDE HFTD	GRIDLEY, OROVILLE

Table 1-2. Transmission

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
BRIDGEVILLE-COTTONWOOD 115 kV	23	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Bridgeville-Cottonwood 115 kV Line De-Energized
BURNS-LONE STAR #1 60 kV	59	Tier 2, Tier 3	Transmission Line	Burns-Lone Star #1- 60 kV Line and Lone Star 60 kV Tap De-Energized
BURNS-LONE STAR #2 60 kV	30	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Burns-Lone Star #2- 60 kV Line and Crusher 60 kV Tap De-Energized
CARIBOU-PALERMO 115 kV	134	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Caribou-Palermo 115 kV Line, Grizzly 115 kV Tap & Big Bend 115 kV Bus De-energized
CASCADE-BENTON- DESCHUTES 60 kV	63	Tier 2 and Partially Outside HFTD	Transmission Line	Cascade-Benton- Deschutes 60 kV Line, Loomis JCT & Wintu JCT De-energized
CASCADE-COTTONWOOD 115 kV	107	Tier 2 and Partially Outside HFTD	Transmission Line	Cascade-Cottonwood 115 kV Line, Oregon Trail 115 kV Sub, SPI 115 kV Tap & Jessup 115 kV Sub De-energized
CENTERVILLE- TABLE MOUNTAIN 60 kV	64	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Centerville-Table Mountain 60 kV Line de-energized
CENTERVILLE- TABLE MOUNTAIN- OROVILLE 60 kV	34	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Centerville-Table Mountain-Oroville 60 kV Line & Clark Road 60 kV Sub De-energized
COLEMAN-COTTONWOOD 60 kV	201	Tier 2 and Partially Outside HFTD	Transmission Line	Coleman-Cottonwood 60 kV Line & Coleman Hatchery 60 kV Tap De-energized
COLEMAN- RED BLUFF 60 kV	97	Tier 2 and Partially Outside HFTD	Transmission Line	Coleman-Red Bluff 60 kV Line, Dairyville 60 kV Tap, Vina 60 kV Tap & Los Molinos 60 kV Tap De-energized
COLEMAN-SOUTH 60 kV	222	Tier 2	Transmission Line	Coleman-South 60kV Line De-Energized
COLGATE- ALLEGHANY 60 kV	1	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Colgate-Alleghany 60 kV Line De-Energized
COLGATE- CHALLENGE 60 kV	3	Tier 2, Tier 3	Transmission Line	Colgate-Challenge 60 kV Line De-Energized

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
COLGATE- GRASS VALLEY 60 kV	31	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Colgate-Grass Valley 60 kV Line De-Energized
COLGATE- PALERMO 60 kV	78	Tier 2 and Partially Outside HFTD	Transmission Line	Colgate-Palermo 60 kV Line De-Energized
COLGATE- SMARTVILLE #2 60 kV	60	Tier 2	Transmission Line	Colgate-Smartville #2- 60 kV Line and Narrows #2-60 kV Tap De-Energized
CORTINA- MENDOCINO #1 115 kV	146	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Cortina-Mendocino #1- 115 kV Line and Lucerne #1-115 kV Tap De-Energized
COTTONWOOD #1 60 kV	165	Tier 2 and Partially Outside HFTD	Transmission Line	Cottonwood #1-60 kV Line De-Energized
COTTONWOOD #2 60 kV	467	Tier 2 and Partially Outside HFTD	Transmission Line	Cottonwood #2-60 kV Line De-Energized
COTTONWOOD -BENTON #1 60 kV	135	Tier 2 and Partially Outside HFTD	Transmission Line	Cottonwood Benton #1- 60 kV Line De-Energized
COTTONWOOD -BENTON #2 60 kV	61	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Cottonwood Benton #2-60 kV Line De-Energized
COTTONWOOD -RED BLUFF 60 kV	178	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Cottonwood-Red Bluff 60kV Line De-Energized
CRAG VIEW- CASCADE 115 kV	40	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Crag View-Cascade 115 kV Line De-Energized
DEER CREEK- DRUM 60 kV	16	Tier 3	Transmission Line	Deer Creek-Drum 60kV Line De-Energized
DESABLA- CENTERVILLE 60 kV	68	Tier 3	Transmission Line	DeSabra-Centerville 60 kV Line, Oro Fino 60 kV Tap and Forks of the Butte 60 kV Tap De-Energized
DONNELLS- MI-WUK 115 kV	65	Tier 3	Transmission Line	Donnels-Mi-Wuk 115 kV Line, Spring Gap 115 kV Tap And Sand Bar 115 kV Tap De-energized
DRUM #2 P.H. 115KV TAP 115 kV	123	Tier 3	Transmission Line	Drum #2 PH 115 kV Tap line De-Energized

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
DRUM-GRASS VALLEY- WEIMAR 60 kV	12	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Drum-Grass Valley- Weimar 60 kV line, Rollins 60 kV tap & Cape Horn 60 kV tap De-Energized
DRUM- HIGGINS 115 kV	77	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Drum-Higgins 115 kV line De-Energized
DRUM-RIO OSO #1 115 kV	241	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Drum-Rio Oso #1 115 kV line and Dutch Flat #2 Tap De-Energized
DRUM-RIO OSO #2 115 kV	124	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Drum-Rio Osos #2 115 kV line De-Energized
DRUM- SPAULDING 60 kV	67	Tier 2, Tier 3	Transmission Line	Drum-Spauldning 60 kV line De-Energized
DRUM- SUMMIT #1 115 kV	98	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Drum-Summit #1 115 kV line De-Energized
DRUM- SUMMIT #2 115 kV	94	Tier 2	Transmission Line	Drum-Summit #2 115 kV line De-Energized
EAGLE ROCK- CORTINA 115 kV	5	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Eagle Rock-Cortina 115 kV line De-Energized
EAGLE ROCK- REDBUD 115 kV	101	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Eagle Rock- Redbud115kV line De-Energized
ELDORADO- MISSOURI FLAT #1 115 kV	163	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Eldorado-Missouri Flat #1-115kV Line, Apple Hill #1-115 kV Tap De-Energized
ELDORADO- MISSOURI FLAT #2 115 kV	221	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Eldorado-Missouri Flat #2 115kV Line and Apple Hill #2 115 kV Tap De-Energized
FRENCH MEADOWS- MIDDLE FORK 60 kV	46	Tier 3	Transmission Line	French Meadows- Middle Fork 60 kV line De-Energized
FULTON- HOPLAND 60 kV	125	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Fulton-Hopland 60 kV line and Fitch Mountain #1-60 kV tap de-energized
GOLD HILL #1 60 kV	58	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Gold Hill #1-60 kV line de-energized

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
HALSEY- PLACER 60 kV	148	Tier 2 and Partially Outside HFTD	Transmission Line	Halsey-Placer 60 kV Line, Auburn 60 kV Tap and Mountain Quarries 60 kV Tap De-Energized
HILLSDALE JCT-HALF MOON BAY 60 kV	184	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Hillsdale Jct-Half Moon Bay 60 kV Line De-Energized
KESWICK- CASCADE 60 kV	102	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Keswick-Cascade 60 kV Line De-Energized
KILARC- CEDAR CREEK 60 kV	51	Tier 3	Transmission Line	Kilarc-Cedar Creek 60 kV line and Clover Creek 60 kV Tap de-energized
KILARC- DESCHUTES 60 kV	91	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Kilarc-Deschutes 60 kV Line De-Energized
KONOCTI- EAGLE ROCK 60 kV	177	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Konocti-Eagle Rock 60kV Line De- Energized
LAKEVILLE #1 60 kV	126	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Lakeville #1-60 kV Line and Fulton-Calistoga 60 kV Line De-Energized
MENDOCINO- HARTLEY 60 kV	100	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Mendocino-Hartley 60 kV Line De-Energized
MENDOCINO- REDBUD 115 kV	146	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Mendocino-Redbud 115 kV Line, Lucerne #2 115 kV Tap De-Energized
METCALF- MONTA VISTA #3 230 kV	313	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Metcalf-Monta Vista #3 230 kV Line De-Energized
MIDDLE FORK #1 60 kV	50	Tier 3	Transmission Line	Middle Fork #1 60 kV Line, Oxbow 60 kV Tap De-Energized
MIDDLE FORK- GOLD HILL 230 kV	90	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Middle Fork-Gold Hill 230 kV Line De-Energized
MI-WUK- CURTIS 115 kV	52	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Mi Wuk-Curtis 115 kV Line, Fibreboard Standard 115 kV Tap De-Energized
MONTA VISTA- BURNS 60 kV	6	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Monta Vista-Burns 60KV Line, Permanente #2 60 kV Tap De-Energized

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
MONTA VISTA-COYOTE SW STA 230 kV	313	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Monta Vista-Coyote SW STA 230 kV Line De-Energized
MOUNTAIN GATE JCT-CASCADE 60 kV	156	Tier 2	Transmission Line	Mountain Gate Jct-Cascade 60KV Line, Mountain Gate 60 kV Tap De-Energized
PALERMO-OROVILLE #1 60 kV	92	Tier 2 and Partially Outside HFTD	Transmission Line	Palermo-Oroville #1 60 kV Line, Louisiana Pacific 60KV Tap, Pacific Oroville Power 60 kV Tap De-Energized
PARADISE-BUTTE 115 kV	185	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Paradise-Butte 115kV De-energized
PARADISE-TABLE MOUNTAIN 115 kV	74	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Paradise-Table Mountain 115kV & Big Bend 115 kV Tap De-energized
PIT #6 JCT-ROUND MOUNTAIN 230 kV	108	Tier 2	Transmission Line	Pit #6 JCT-Round Mountain 230kV Line, Pit #6 230 kV JCT & Pit #7 230 kV Tap De-energized
POTTER VALLEY-WILLITS 60 kV	136	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Potter Valley-Willits 60 KV Line De-Energized
SMARTVILLE-MARYSVILLE 60 kV	72	Tier 2 and Partially Outside HFTD	Transmission Line	Smartville-Marysville 60 kV Line De-energized
SMARTVILLE-NICOLAUS #2 60 kV	73	Tier 2 and Partially Outside HFTD	Transmission Line	Smartville-Nicolaus #2-60kV Line De-energized
SNEATH LANE-HALF MOON BAY 60 kV	14	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Sneath Lane-Half Moon Bay 60 kV Line De-energized
SOBRANTE-GRIZZLY-CLAREMONT #1 115 kV	15	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Sobrante-Grizzly-Claremont #1-115 kV Line De-energized
SOBRANTE-GRIZZLY-CLAREMONT #2 115 kV	261	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Sobrante-Grizzly-Claremont #2-115 kV Line De-energized
SPAULDING-SUMMIT 60 kV	39	Tier 2 and Partially Outside HFTD	Transmission Line	Spaulding-Summit 60 kV Line De-energized

Circuit	Transmission Hardening Priority Level	HFTD Tier(s)	Key Communities	Notes
TIGER CREEK-ELECTRA 230 kV	292	Tier 2, Tier 3	Transmission Line	Tiger Creek-Electra 230kV Line De-energized
TIGER CREEK-VALLEY SPRINGS 230 kV	211	Tier 2	Transmission Line	Tiger Creek-Valley Springs 230 kV Line De-energized
TRINITY-COTTONWOOD 115 kV	71	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Trinity-Cottonwood 115 kV Line
TULUCAY-NAPA #1 60 kV	75	Tier 2 and Partially Outside HFTD	Transmission Line	Tulucay-Napa #1-60kV Line, Basalt #1-60 kV Tap, Cordelia #1 and #2 – 60 kV Taps De-energized
VOLTA-DESCHUTES 60 kV	119	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Volta-Deschutes 60 kV Line and Kilarc-Volta Tie 60 kV De-energized
VOLTA-SOUTH 60 kV	10	Tier 2, Tier 3	Transmission Line	Volta-South 60 kV Line De-energized
WEIMAR #1 60 kV	4	Tier 2, Tier 3	Transmission Line	Weimar-#1-60 kV Line AND Oxbow 60 kV Tap De-Energized
WEIMAR-HALSEY 60 kV	154	Tier 2	Transmission Line	Weimar-Halsey 60 kV Line De-energized
WEST POINT-VALLEY SPRINGS 60 kV	69	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	West Point-Valley Springs 60kV Line AND Pine Grove 60 kV Tap De-energized
WOODLEAF-PALERMO 115 kV	24	Tier 2, Tier 3, and Partially Outside HFTD	Transmission Line	Woodleaf-Palermo, Kanaka 115 kV Tap, Forbestown 115 kV Tap & Sly Creek 115 kV Tap De-energized